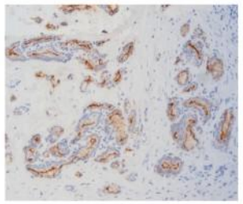
HBME-1



HBME-1 is mainly distributed in mesothelial cells and not expressed in other glandular epithelium. It has a certain role in distinguishing mesothelioma from adenocarcinoma. The positive part of this antibody in malignant mesothelioma is mostly cell membrane. In other adenocarcinomas, this antibody is mostly cytoplasmic positive, which need to pay attention to identify during diagnosis. The antibody is abnormal expression in thyroid cancer, showing strong positive staining of the periapical membrane, which highlights the small foci of cancer in benign thyroid tissue. The antibody can be used in combination with other antibodies (CK19, CD56 and Galectin-3) for the differential diagnosis of benign and malignant thyroid cancer.

Code	Localizatio	Source	Clone	Positive Control
FHM0010	Cytoplasm/Membrane	Mouse	HBME-1	Mesothelioma, tonsil, breast

FISH Probes

FISH Probes Look-up Table

Cat.No.	Disease	Product Name	Note*	Pending
CF1001	Breast Cancer	HER2 Gene Amplification Detection Kit	CE	
CF1002		TOP2A Gene Detection Kit for Breast Cancer	CE	Pending
CF1003		ZNF217 Gene Amplification Detection Kit	CE	Pending
CF1004		PTEN Gene Deletion Detection Probe	CE	Pending
CF1005		C-MYC (8q24) Gene Amplification Detection Kit	CE	Pending
CF1006		ESR1 Gene Amplification Detection Probe	CE	Pending
CF1007		FGFR1 Gene Amplification Detection Probe	CE	Pending
CF1008		Abnormal Detection Probe for the Number of Chromosomes for Breast Cancer	CE	Pending
CF1010	Lung Cancer	ALK Breakapart Detection Kit	CE	Pending
CF1011		EGFR Gene Detection Kit	CE	Pending
CF1012		EML4/ALK Fusion Gene Detection Kit	CE	Pending
CF1013		C-MET Gene Amplification Detection Kit	CE	Pending
CF1014		ROS1 Breakapart Detection Kit	CE	Pending
CF1015		NTRK1 Breakapart Detection Kit	CE	Pending
CF1016		PIK3CA Gene Amplification Detection Kit	CE	Pending
CF1017		ERCC1 Gene Amplification Detection Kit	CE	Pending
CF1018		TERT Gene Amplification	CE	Pending
CF1019		RET Breakapart	CE	Pending
CF1020	Bladder Cancer	Bladder Cancer Detection Kit	CE	Pending
CF1021		P53 Gene Detection Kit	CE	Pending
CF1022		E2F3 Gene Detection Kit	CE	Pending
CF1030	Cervical Cancer	TERC Gene Detection Kit	CE	Pending
CF1005		C-MYC (8q24) Gene Detection Kit	CE	Pending
CF1032		hWAPL Gene Amplification Detection Probe	CE	Pending
CF1040	Prostate Cancer	Gene Abnormalities in Prostate Cancer Detection Kit	CE	Pending
CF1041		ERG(21q22) Gene Rearrangement Detection Kit	CE	Pending
CF1042		AR Gene Amplification Detection Kit	CE	Pending
CF1004		PTEN Gene Detection Kit	CE	Pending
CF1044		CHD1 Gene Detection Kit	CE	Pending
CF1045		LPL Gene Deletion Detection Kit	CE	Pending

Cat.No.	Disease	Product Name	Note*	Pending
CF1050	Thyroid Cancer	PPARγ Breakapart Detection Probe	CE	Pending
CF1051		BCL1 (CCND1) Gene Amplification Detection Kit	CE	Pending
CF1060	Neuroblastoma	MYCN Gene Amplification Detection Kit	CE	Pending
CF1061		MDM4 Gene Amplification Detection Kit	CE	Pending
CF1062		MLL(KMT2A)Gene Amplification Detection Kit	CE	Pending
CF1063		SRD Gene Deletion Detection Kit	CE	Pending
CF1064		AURKA Genetic Amplification Detection Kit	CE	Pending
CF1070	Soft Tissue Tumor	EWSR1 Split Gene Detection Kit	CE	Pending
CF1071		CHOP(DDIT3)Breakapart Detection Kit	CE	Pending
CF1072		FUS Breakapart Detection Kit	CE	Pending
CF1073		MDM2 Gene Amplification Detection Kit	CE	Pending
CF1074		FKHR Split Gene Detection Kit	CE	Pending
CF1075		SYT(SS18)Split Gene Detection Kit	CE	Pending
CF1076		ASPSCR1/TFE3 Gene Fusion Detection Kit	CE	Pending
CF1080	Renal Cell Carcinoma	TFE3 Split Gene Detection Kit	CE	Pending
CF1090	Retinoblastoma	RB1 Gene Deletion Detection Kit	CE	Pending
CF1100	Liver Cancer	AURKB Gene Amplification Detection Kit	CE	Pending
CF1110	Oligodendroglioma	1p/19q Deletion Detection Kit	CE	Pending
CF1120	Acute Myeloid Leukemia(AML)	AML/ETO Gene Fusion Detection Kit	CE	Pending
CF1121		PML/RARA Gene Fusion Detection Kit	CE	Pending
CF1122		CBFB Breakapart Detection Kit	CE	Pending
CF1062		KMT2A(MLL)Breakapart Detection Kit	CE	Pending
CF1124		CBFB/MYH11 Gene Fusion Detection Kit	CE	Pending
CF1125		RARA Breakapart Detection Kit	CE	Pending
CF1126		AML(RUNX1)Breakapart Detection Kit	CE	Pending
CF1127		5q Deletion Detection Kit	CE	Pending
CF1128		7q Deletion Detection Kit	CE	Pending
CF1129		EVI Breakapart Detection Kit	CE	Pending
CF1130		MLL/MLLT3 Gene Fusion Detection Kit	CE	Pending

Cat.No.	Disease	Product Name	Note*	Pending
CF1240	Chronic Myelogenous Leukemia (CML)	ABL/BCR Fusion Gene Detection Kit	CE	Pending
CF1241		ASS Breakapart Detection Kit	CE	Pending
CF1242		CHIC2 Gene Deletion Detection Kit	CE	Pending
CF3008		Chromosome 8 Detection Kit	CE	Pending
CF1244		PDGFRB Breakapart Detection Kit	CE	Pending
CF1245		FGFR1 Breakapart Detection Kit	CE	Pending
CF1246		NUP98 Breakapart Detection Kit	CE	Pending
CF1247		JAK27 Breakapart Detection Kit	CE	Pending
CF1250	Acute Lymphoblastic Leukemia (ALL)	TEL(ETV6)/AML Gene Fusion Detection Kit	CE	Pending
CF1251		TEL Breakapart Detection Kit	CE	Pending
CF1252		P16 Deletion Detection Kit	CE	Pending
CF1253		E2A Breakapart Detection Kit	CE	Pending
CF1254		E2A/PBX1 Fusion Gene Detection Kit	CE	Pending
CF1255		Chromosome 4, 10, 10 Counts Detection Kit	CE	Pending
CF1256		C-MYC Breakapart Detection Kit	CE	Pending
CF1257		IGH Breakapart Detection Kit	CE	Pending
CF1062		MLL (KMT2A) Breakapart Detection Kit	CE	Pending
CF1259		MLL/AFF1 Fusion Gene Detection Kit	CE	Pending
CF1260		Children ALL Chromosome and Gene Abnormality Detection Kit	CE	Pending
CF1270	Chronic Lymphocytic Leukemia (CLL)	DLEU Gene Deletion Detection Kit	CE	Pending
CF1021		P53 Gene Detection Kit	CE	Pending
CF1272		ATM Gene Deletion Detection Kit	CE	Pending
CF1005		C-MYC(8q24) Gene Amplification Detection Kit	CE	Pending
CF1274		6q Deletion Detection Kit	CE	Pending
CF1030		TERC Gene Amplification Detection Kit	CE	Pending
CF1276		GLI Gene Detection Kit	CE	Pending
CF3012		Chromosome 12 Detection Kit	CE	Pending
CF1278		IGH/BCL2 Fusion Gene Detection Kit	CE	Pending
CF1279		CCND3/IGH Fusion Gene Detection Kit	CE	Pending
CF1280		CLL Chromosomes and Gene Abnormalities Detection Kit	CE	Pending

Cat.No.	Disease	Product Name	Note*	Pending
CF1290	Lymphoma	C-MYC/IGH Fusion Gene Detection Kit	CE	Pending
CF1291		BCL1/IGH Fusion Gene Detection Kit	CE	Pending
CF1292		MYEOV/IGH Fusion Gene Detection Kit	CE	Pending
CF1278		BCL2/IGH Gene Fusion Detection Kit	CE	Pending
CF1257		IGH Breakapart Detection Kit	CE	Pending
CF1295		MALT Breakapart Detection Kit	CE	Pending
CF1296		BCL1 Breakapart Detection Kit	CE	Pending
CF1297		BCL6 Breakapart Detection Kit	CE	Pending
CF1010		ALK Breakapart Detection Kit	CE	Pending
CF1299		BCL2(18q21) Breakapart Detection Kit	CE	Pending
CF1256		CMYC Breakapart Detection Kit	CE	Pending
CF1291	Multiple Myeloma (MM)	BCL1/IGH Gene Fusion Detection Kit	CE	Pending
CF1301		MAF/IGH Gene Fusion Detection Kit	CE	Pending
CF1302		FGFR3/IGH Gene Fusion Detection Kit	CE	Pending
CF1303		MAFB/IGH Gene Fusion Detection Kit	CE	Pending
CF1279		CCND3/IGH Gene Fusion Detection Kit	CE	Pending
CF1305		11q23 and DLEU Gene Abnormality Detection Kit	CE	Pending
CF1021		p53 Gene Detection Kit	CE	Pending
CF1307		15q22 and 6q21 Gene Abnormality Detection Kit	CE	Pending
CF1308		1q21 and 1p36 Gene Abnormality Detection Kit	CE	Pending
CF1309		IGH Breakapart Detection Kit	CE	Pending
CF1236		[IGH/CCND1]/[IGH/MAF]/[IGH/MAFB]/[IGH/FGFR3] Fusion Gene Probe Reagent (Fluorescence in Situ Hybridization)	CE	Pending
CF1310		Multiple Myeloma Gene Abnormality Detection Kit	CE	Pending
CF1127	Myelodysplastic Syndromes (MDS)	5q Deletion Detection Kit	CE	Pending
CF1128		7q Deletion Detection Kit	CE	Pending
CF1322		20q Deletion Detection Kit	CE	Pending
CF1323		EGR1 Deletion Detection Kit	CE	Pending
CF1129		EVI Breakapart Detection Kit	CE	Pending
CF1325		Chromosome number Detection Kit of X and Y	CE	Pending
CF1326		MDS Chromosome and Gene Abnormalities Detection Kit	CE	Pending

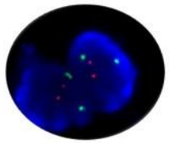
Cat.No.	Disease	Product Name	Note*	Pending
CF1078	Congenital Fibrosarcoma & Secretory Carcinoma of Breast Congenital & Mesodermal Nephroma (Multiple Cancers)	ETV6/NTRK3 Fusion Gene T (12; 15) Probe Reagent (Fluorescence in Situ Hybridization)	CE	Pending
CF1330	Prenatal and Miscarriage Diagnosis	Prenatal Numerical Abnormalities of Chromosomes Detection Kit	CE	Pending
CF1331		13/16/18/21/22/X/Y Chromosome Number Detection Kit	CE	Pending
CF1332		Chromosome Number Detection Kit of X and Y	CE	Pending
CF4001	FISH Consumables	Pre-treatment Kit of Paraffin Tissue Sample (250ml)	CE	Pending
CF4001		Pre-treatment Kit of Paraffin Tissue Sample (1000ml)	CE	Pending
CF4002		Pre-treatment Kit of PB(Blood Marrow)(250ml)	CE	Pending
CF4002		Pre-treatment Kit of PB(Blood Marrow)(1000ml)	CE	Pending
CF6001	EBER	EBER Probe-Manual Reagents	CE	
CF6002		EBER Probe-Automated Reagents	CE	

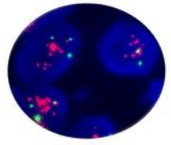
Solid Tumor Probe

Breast Cancer-Related Probe

HER2 Gene Amplification Detection Kit

Probe Description: HER2/Cep 17
Product Code: CF1001
Specification: 10 tests/box, 20 tests/box


HER2 Normal

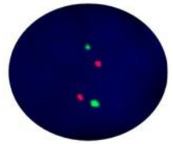

HER2

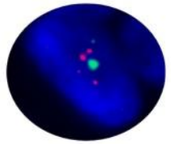
Clinical Significance:

1. Medication Guide: HER2-positive patients can choose Herceptin, lapatinib and other targeted drugs for treatment.
2. To judge breast cancer prognosis: HER2 gene amplification patient prognosis difference, disease-free survival and total survival significantly shortened.
3. Breast cancer endocrine treatment Guide: HER2 gene amplification patients are not sensitive to endocrine therapy.
4. To guide the choice of breast cancer-assisted chemotherapy drugs: HER2 gene amplification of patients with low response rate to CMF chemotherapy program, it is advisable to use yew alcohol and cyclic high-intensity chemotherapy drugs.

ZNF217 Gene Amplification Detection Kit

Probe Description: ZNE217/ 20q11
Product Code: CF1003
Specification: 10 tests/box, 20 tests/box


ZNF217 Normal

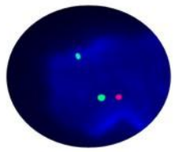

ZNF217 Amplification

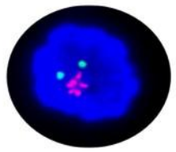
Clinical Significance:

1. ZNF217 gene was amplified in breast cancer, and its status was related to tumor invasion.
2. ZNF217 gene was also amplified in other tumors such as ovarian/colorectal/head and neck/pancreatic cancer, and was an important marker of tumor development.

TOP2A Gene Detection Kit for Breast Cancer

Probe Description: TOP2A/Cep 17
Product Code: CF1002
Specification: 10 tests/box, 20 tests/box


TOP2A Deletion

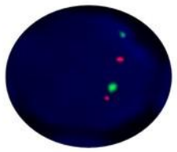

TOP2A Amplification

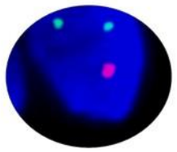
Clinical Significance:

1. TOP2A gene amplification is often accompanied by HER-2 gene amplification in patients (about 30%-50%), which accounts for 8% of all breast cancers and has a poor prognosis.
2. CEF regimen can reduce the risk of recurrence and death in breast cancer patients with TOP2A gene amplification, which is a target of anthracyclines.
3. Patients with TOP2A gene deletion have a worse prognosis and should not be treated with anthracyclines.
4. Studies have shown that the efficacy (disease-free survival and total survival) of anthracycline chemotherapy alone (AC, cyclophosphamide + doxorubicin) in patients co-expanded with HER-2 and TOP2A was comparable to that of AC+ Herceptin.
5. Population-specific screening of anthracycline drugs before administration can reduce the side effects such as cardiotoxicity and inducing secondary leukemia.

PTEN Gene Deletion Detection Probe

Probe Description: PTEN/Cep 10
Product Code: CF1004
Specification: 10 tests/box, 20 tests/box


PTEN Normal

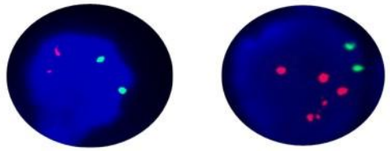

PTEN Deletion

Clinical Significance:

1. PTEN gene plays an important role in maintaining chromosome stability and cell proliferation.
2. Deletion in breast cancer,glioma, prostate cancer means poor prognosis.

C-MYC(8q24) Gene Amplification Detection Kit

Probe Description: C-MYC/Cep 8
Product Code: CF1005
Specification: 10 tests/box, 20 tests/box



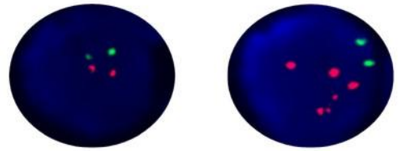
C-MYC Normal C-MYC Amplification

Clinical Significance:

1. C-myc gene can be amplified in a variety of tumors, such as breast cancer and cervical cancer, with poor prognosis.
2. To detect polyploid of chromosome 8.

FGFR1 Gene Amplification Detection Probe

Probe Description: FGFR1/Cep 8
Product Code: CF1007
Specification: 10 tests/box, 20 tests/box



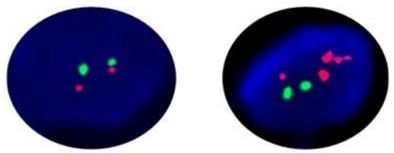
FGFR1 Normal FGFR1 Amplification

Clinical Significance:

1. Associated with breast cancer prognosis
2. Potential targets for treatment

ESR1 Gene Amplification Detection Probe

Probe Description: ESR1/Cep 6
Product Code: CF1006
Specification: 10 tests/box, 20 tests/box



ESR1 Normal ESR1 Amplification

Clinical Significance:

1. Estrogen receptor gene (ESR1) has high amplification in some breast cancer patients. ESR1 amplification was accompanied by high protein expression, but only 2/3 of patients with high ER expression showed ESR1 amplification.
2. Patients with ERS1 amplification responded significantly to estrogen therapy (tamoxifen) monotherapy. The patient's total survival was significantly longer than that of patients with no amplification of ERS1, and the higher the amplification, the better the patient's prognosis.
3. The detection and treatment of estrogen receptor genes is more accurate and effective than the protein.
4. The ESR1 gene was also expressed in some patients with benign and precancerous breast cancer, suggesting that the amplification of the ESR1 gene may be an early event of breast cancer development.

Abnormal Detection Probe for the Number of Chromosomes for Breast Cancer

Probe Description: Cep 1/Cep 8/ Cep 11/Cep 17
Product Code: CF1008
Specification: 10 tests/box, 20 tests/box

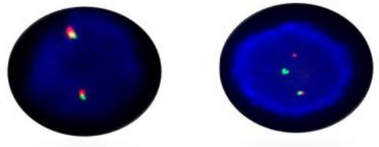
Clinical Significance:

1. Chromosome polyploids are early events of breast cancer.
2. Chromosomes 1, 8, 11, and 17 polyploids are common, which can indicate the prognosis, progression, recurrence and metastasis of breast cancer.

Lung Cancer-Related Probes

ALK Breakapart Detection Kit

Probe Description: ALK
Product Code: CF1010
Specification: 10 tests/box, 20 tests/box



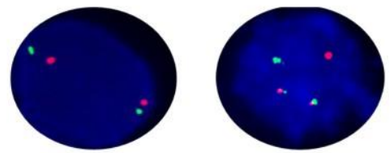
ALK Normal ALK Breakapart

Clinical Significance:

1. Guidelines medication:The SFDA has approved Crizotinib as a targeted treatment for advanced ALK-positive non-small cell lung cancer. The essential condition of medicine treatment,XALKORI(Crizotinib), is required to test for ALK-positive non-small cell lung cancer by FISH. At the beginning,IHC preliminary screening could be operated for the sample screening of (D5F3 or 5A4 antibody) and 1+ (more than 5% of the cell color), after then do FISH to confirm positive.ALK gene fusion is an important biological characteristic of non-small cell lung cancer. Patients with positive ALK gene fusion are sensitive to Crizotinib.
2. The monograph, [Chinese Experts Consensus on ALK Positive Non-small cell Lung Cancer Diagnosis (2013 edition)] illustrates that the proportion of ALK gene positive was as high as 30%-42% in the NSCLC patients group whom is youth (<60 years old) with non-smoking and adenocarcinoma as well as their gene of EGFR, KRAS, HER-2 or P53 has no mutation.
3. Pathological morphology studies suggest that the positive rate in mucus-type or real adenocarcinoma containing imprinted cells is higher than in other types of lung adenocarcinoma.

EML4/ALK Fusion Gene Detection Kit

Probe Description: EML4/ALK
Product Code: CF1012
Specification: 10 tests/box, 20 tests/box



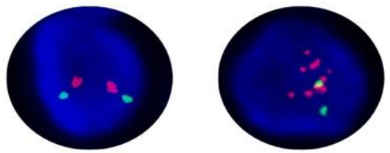
EML4/ALK Not Fusion EML4/ALK Fusion

Clinical Significance:

1. In non-small cell lung cancer, inv (2) (P21; P23) forms a molecular subunit of the fusion gene EML4-ALK, which is the target of the targeted drug Crizotinib.
2. A new EML4-ALK evaluation item was added to the 2010 non-small cell lung cancer Clinical guidelines for the prediction of the efficacy of ALK inhibitors.

EGFR Gene Detection Kit

Probe Description: EGFR/ Cep 7
Product Code: CF1011
Specification: 10 tests/box, 20 tests/box



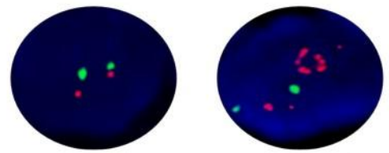
EGFR Normal EGFR Amplification

Clinical Significance:

1.The therapeutic effect of Tyrosine kinase inhibitor (TKIs) was significantly improved in patients with EGFR gene amplification (80% of lung cancer).
2.The utilization of screening of NSCLC patients for TKIs treatment
3. EGFR gene amplification can also occur in lung cancer, head and neck cancer, ovarian cancer, cervical cancer, bladder cancer, esophageal cancer and other more tumors.

C-MET Gene Amplification Detection Kit

Probe Description: C-MET/ Cep 7
Product Code: CF1013
Specification: 10 tests/box, 20 tests/box



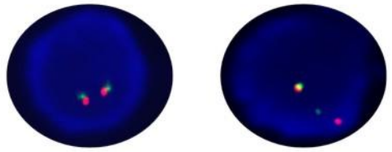
C-MET Normal C-MET Amplification

Clinical Significance:

1. C-MET can be amplified in multiple tumors such as ovarian,breast,lung, thyroid, Gastric, pancreatic, colorectal and is an independent assessment factor of poor prognosis.
2. In non-small cell lung cancer, C-MET gene amplification was closely associated with poor prognosis and EGFR-TKIS resistance (seen in 11-22% of cases).
3. C-MET gene amplification is one of the targets of Crizotinib. In patients with C-MET gene amplification, tumor size can be significantly reduced after a period of treatment.

ROS1 Breakapart Detection Kit

Probe Description: ROS1
Product Code: CF1014
Specification: 10 tests/box, 20 tests/box



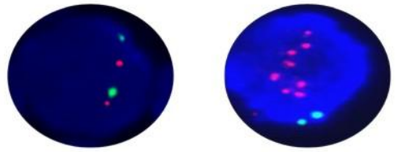
ROS1 Normal　　ROS1 Breakapart

Clinical Significance:

1. ROS1 gene is expressed in brain, lung, gastric, breast and liver tumors, and translocated with other genes in non-small cell lung cancer cells (for example, SCL34A2, CD74, etc.).
2. The proportion of NSCLC patients with ROS1 translocation is about 3%. The drug of crizotinib can inhibit the growth of ROS1 fusion gene cells, and the detection of ROS1 gene breakapart can guide the administration of crizotinib.

PIK3CA Gene Amplification Detection Kit

Probe Description: PIK3CA/Cep3
Product Code: CF1016
Specification: 10 tests/box, 20 tests/box



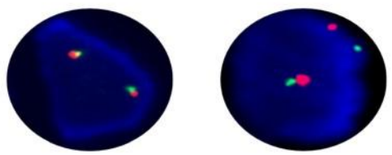
PIC3CA Normal　　PIC3CA Amplification

Clinical Significance:

1. The gene amplification rate was higher in lung squamous cell carcinoma patients;
2. There was a significant difference in EGFR mutation rate between those without amplification and those without amplification.
3. The prognosis is worse.

NTRK1 Breakapart Detection Kit

Probe Description: NTRK1
Product Code: CF1015
Specification: 10 tests/box, 20 tests/box



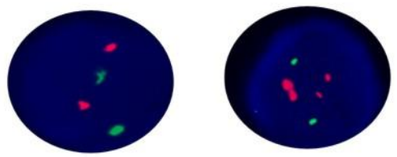
NTRK1 Normal　　NTRK1 Breakapart

Clinical Significance:

1. NTRK1 (1Q21-Q22) encodes TRKA protein. When rearrangement occurs, it leads to abnormal cell proliferation. Trk inhibitors and crizotinib can reduce the phosphorylation of fusion protein and inhibit cell proliferation.
2. New therapeutic targets in lung adenocarcinoma.

ERCC1 Gene Amplification Detection Kit

Probe Description: ERCC1/19p13
Product Code: CF1017
Specification: 10 tests/box, 20 tests/box



ERCC1 Normal　　ERCC1 Amplification

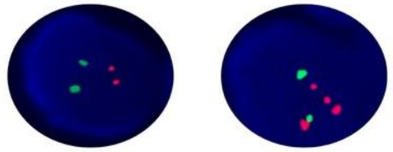
Clinical Significance:

1. ERCC1 is an important gene in NER pathway, which is associated with platinum-based chemotherapy for a variety of cancers, such as gastric, bladder, ovary, colon and non-small cell lung cancer.
2. Low levels of ERCC1 are associated with long-term survival after cisplatin chemotherapy.

Bladder Cancer Related Probes

TERT Gene Amplification

Probe Description: TERT/5q31
Product Code: CF1018
Specification: 10 tests/box, 20 tests/box



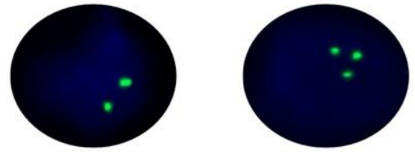
TERT Normal　　TERT Amplification

Clinical Significance:

1. TERT gene amplification occurs in a variety of tumors, especially lung cancer, cervical cancer and breast cancer.
2. The TERT gene is the amplification target of human malignant tumor transformation and this molecular event may be beneficial to the abnormal regulation of TERT.

Bladder Cancer Detection Kit (Package)

Probe Description: Cep3/ p16;Cep7/Cep17
Product Code: CF1020
Specification: 10 tests/box, 20 tests/box



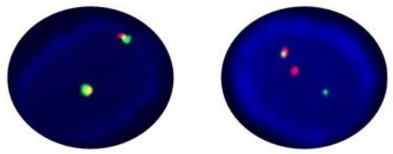
Normal Chromosome 17　　Abnormal Chromosome 17

Clinical Significance:

1. It was divided into two reaction tests, one is detecting deletion of chromosome 3 and P16 genes, another is looking for abnormalities in chromosome 7 and 17;
2. Urine exfoliated cells were used for detection, and the patient did not need to undergo painful of cystoscopy.
3. With good sensitivity, abnormal cells can be detected earlier than conventional cell morphological detection, which can be treated earlier.
4. It is used for early diagnosis of bladder cancer and postoperative recurrence monitoring;
5. P16 is absent in a variety of tumors, including leukemia, lung cancer, melanoma

RET Breakapart

Probe Description: RET
Product Code: CF1019
Specification: 10 tests/box, 20 tests/box



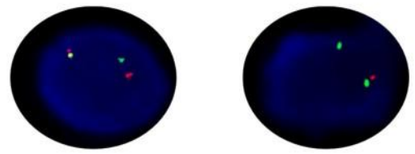
RET Normal　　RET Breakapart

Clinical Significance:

1. This occurs in 1-2% of patients with non-small cell lung adenocarcinoma
2. The expression was lower in normal lung tissue, and the gene rearrangement activated the kinase active domain of RET, and the expression was higher in lung cancer samples.
3. Three targeted drugs, Vandetanib, Sorafenib and Sunitinib, inhibit the activity of multiple receptor tyrosine kinases including RET, and to kill cells carrying RET fusion gene.

P53 Gene Detection Kit

Probe Description: P53/Cep17
Product Code: CF1021
Specification: 10 tests/box, 20 tests/box



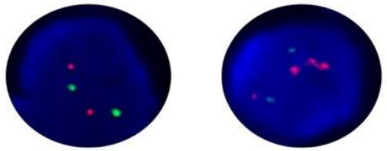
P53 Gene Normal　　P53 Genetic Deletion

Clinical Significance:

1.P53 gene is absent in many tumors and has a poor prognosis.

E2F3 Gene Detection Kit

Probe Description: E2F3/Cep6
Product Code: CF1022
Specification: 10 tests/box, 20 tests/box



E2F3 Normal

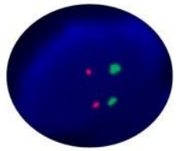
E2F3 Amplification

Clinical Significance:

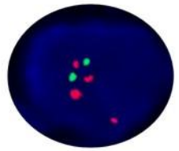
1. E2F3 belongs to the E2F transcriptional regulation family and is an important cell cycle regulator involved in the regulation of cell proliferation.
2. E2F3 is closely related to the malignancy of bladder cancer.

C-MYC(8q24) Gene Detection Kit

Probe Description: C-MYC/Cep8
Product Code: CF1005
Specification: 10 tests/box, 20 tests/box



C-MYC Normal



C-MYC Amplification

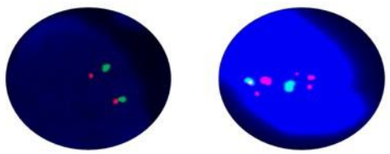
Clinical Significance:

1. Patients with C-MYC gene amplification had a poor prognosis but responded well to high-dose chemotherapy.

Cervical Cancer Related Probe

TERC Gene Detection Kit

Probe Description: TERC/Cep3
Product Code: CF1030
Specification: 10 tests/box, 20 tests/box



TERC Normal

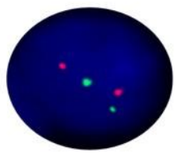
TERC Amplification

Clinical Significance:

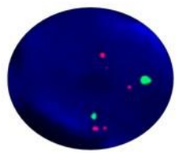
1. The patients with TERC gene amplification in precancerous lesions (CIN, or ASCUS, LSIL ,HSIL) was greatly increased (above 80%) against the probability of development to cervical cancer.
2. TERC gene status can assist pathological grading and guide treatment solution selection, and can avoid overtreatment of patients with precancerous lesions.

hWAPL Gene Amplification Detection Probe

Probe Description: hWAPL/Cep10
Product Code: CF1032
Specification: 10 tests/box, 20 tests/box



hWAPL Normal



hWAPL Amplification

Clinical Significance:

1. It is specific and highly expressed genes of cervical cancer with oncogene characteristics.
2. Significantly related to the severity of the cancer.

Prostate Cancer Related Probe

Gene Abnormalities in Prostate Cancer Detection Kit

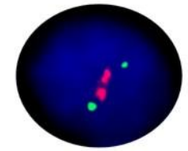
Probe Description: TMPRSS2/ERG/ETV1/ETV4
Product Code: CF1040
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

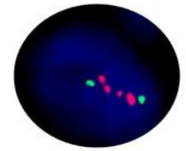
1. It assists for early diagnosis and treatment of prostate cancer.
2. Patients with no change in ERG gene had a better prognosis.

AR Gene Amplification Detection Kit

Probe Description: AR/CepX
Product Code: CF1042
Specification: 10 tests/box, 20 tests/box



AR Normal



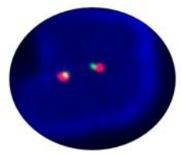
AR Amplification

Clinical Significance:

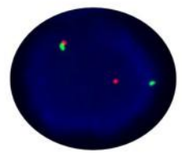
1. Androgen receptor (AR) gene amplification was found in 1/3 hormone-independent prostate cancer, which was located at Xq12.
2. It is associated with the occurrence of prostate cancer.

ERG Gene Rearrangement Detection Kit

Probe Description: ERG
Product Code: CF1041
Specification: 10 tests/box, 20 tests/box



ERG Normal



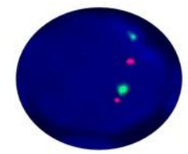
ERG Breakapart

Clinical Significance:

1. It is generally found only in prostate cancer, but not in benign prostatic hyperplasia or normal epithelium.
2. The relationship between ERG rearrangement differences among prostate cancer lesions and disease progression can be used as an independent predictor of metastasis
3. Most are associated with poor prognosis
4. It can guide abiraterone drug use.

PTEN Gene Detection Kit

Probe Description: PTEN/Cep10
Product Code: CF1004
Specification: 10 tests/box, 20 tests/box



PTEN Normal

PTEN Deletion

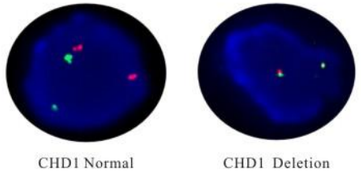
Clinical Significance:

1. Tumor suppressor gene, located at 10Q23
2. PTEN genetic deficiency was significantly associated with the progression of multiple tumors (prostate cancer, glioblastoma, endometrial cancer, renal cancer, ovarian cancer, breast cancer, etc.)

Thyroid Cancer Related Probes

CHD1 Gene Detection Kit

Probe Description: CHD1/5p15
Product Code: CF1044
Specification: 10 tests/box, 20 tests/box



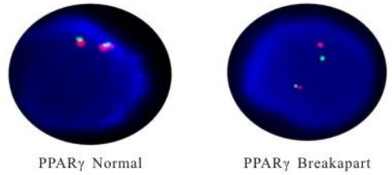
CHD1 Normal CHD1 Deletion

Clinical Significance:

1. The tumor suppressor gene is second only to PTEN in prostate cancer
2. This genetic deficiency was significantly associated with the progression of multiple tumors (prostate cancer, glioblastoma, endometrial cancer, renal cancer, ovarian cancer, breast cancer, etc.)

PPARγ Breakapart Detection Probe

Probe Description: PPARγ
Product Code: CF1050
Specification: 10 tests/box, 20 tests/box



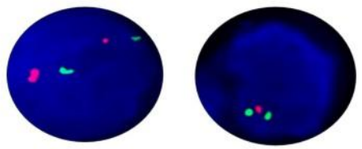
PPARγ Normal PPARγ Breakapart

Clinical Significance:

1. PPAR translocation occurred in 35%-47% of patients with thyroid follicular carcinoma. It is found in 11% of follicular adenomas 13% of follicular variant PTC and 2% of Hurthle cell carcinoma. However, this translocation is absent from anaplastic carcinoma and benign nodular hyperplasia.
2. Thyroid tumors with PAX8/PPARγ fusion genes are prone to progression, and are considered to be specific oncogenes in the early stages of thyroid follicular carcinoma, and can be used for prognosis judgment.
3. For detecting PPARγ split gene and translocation with other genes in thyroid follicular carcinoma.

LPL Gene Deletion Detection Kit

Probe Description: LPL/Cep 8
Product Code: CF1045
Specification: 10 tests/box, 20 tests/box



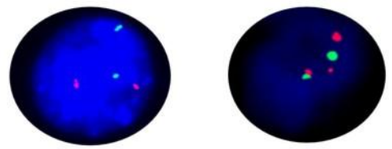
LPL Normal LPL Deletion

Clinical Significance:

1. LPL encodes a protein lipase, and mutations can lead to lipoprotein metabolism disorders.
2. The presence of a high percentage of deficiency in prostate cancer patients is an effective complement to traditional prognostic indicators for prostate cancer.

BCL1 (CCND1) Gene Amplification Detection Kit

Probe Description: BCL1/Cep 11
Product Code: CF1051
Specification: 10 tests/box, 20 tests/box



BCL1 Normal BCL1 Amplification

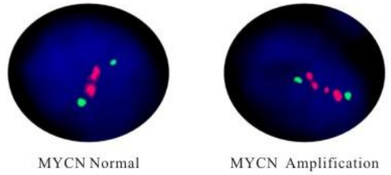
Clinical Significance:

1. CCND1 gene amplification is predicted to play an important role in tumor development and can occur in various tumors such as thyroid cancer/breast cancer/colorectal cancer/lymphoma/melanoma/prostate cancer.

Neuroblastoma Related Probes

MYCN Gene Amplification Detection Kit

Probe Description: MYCN/Cep 2
Product Code: CF1060
Specification: 10 tests/box, 20 tests/box



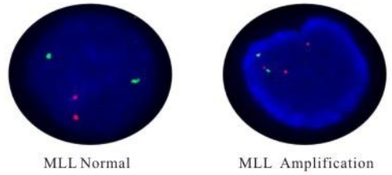
MYCN Normal MYCN Amplification

Clinical Significance:

1. Amplification occurs in approximately 25% of patients with neuroblastoma, which is closely related to NB invasion, metastasis and poor prognosis.
2. Gene overexpression will block the differentiation, growth and proliferation of cells, and MYCN genetic amplification will lead to the malignant proliferation of tumor cells.

MLL (KMT2A) Gene Amplification Detection Kit

Probe Description: KMT2A/Cep 11
Product Code: CF1062
Specification: 10 tests/box, 20 tests/box



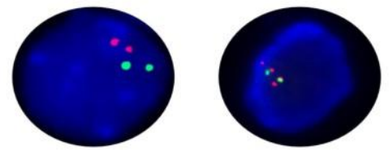
MLL Normal MLL Amplification

Clinical Significance:

1. 11q deletion occurs in primary neuroblastoma.
2. In the malignant process of neuroblastoma without MYCN amplification, the tumor suppressor gene located in the 11q23.3 region was inactivated (amplification or deletion detection).

MDM4 Gene Amplification Detection Kit

Probe Description: SRD/1p36
Product Code: CF1061
Specification: 10 tests/box, 20 tests/box



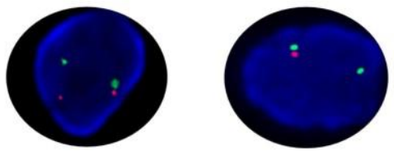
MDM4 Normal MDM4 Amplification

Clinical Significance:

1. The amplification and overexpression of MDM4 occurs in 65% of human retinoblastoma.
2. It can be used as a specific chemotherapy target for this tumor.

SRD Gene Deletion Detection Kit

Probe Description: SRD/1p36
Product Code: CF1063
Specification: 10 tests/box, 20 tests/box



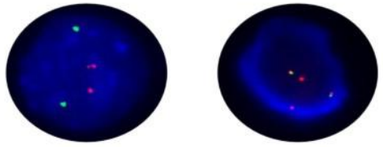
SRD Normal SRD Deletion

Clinical Significance:

1. 1p36 region (SRD gene) deletion can occur in a variety of tumors, such as glioma/leukemia/lymphoma/neuroblastoma.
2. 1p36 is the most typical genetic change in neuroblastoma (the most common extracranial tumor in children).

AURKA Genetic Amplification Detection Kit

Probe Description: AURKA/20q11
Product Code: CF1064
Specification: 10 tests/box, 20 tests/box



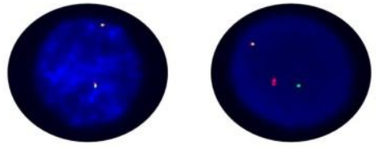
AURKA Normal AURKA Amplification

Clinical Significance:

1. AURKA gene plays an important role in maintaining cell balance.
2. AURKA gene amplification can occur in various tumors such as breast cancer/ovarian cancer/colorectal cancer/prostate cancer/cervical cancer/neuroblastoma.

CHOP (DDIT3) Breakapart Detection Kit

Probe Description: CHOP
Product Code: CF1071
Specification: 10 tests/box, 20 tests/box



CHOP Normal CHOP Breakapart

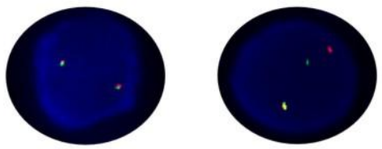
Clinical Significance:

1. Liposarcoma is one of the most common sarcomas in adults (approximately 10-16%). Myxoid liposarcoma is the most common liposarcoma subtype.
2. In most (95%) patients with round cell/myxoid liposarcoma, the CHOP gene can translocate with the FUS gene or the EWSR1 gene.
3. For auxiliary diagnosis of round cell/myxoid liposarcoma.

Soft Tissue Tumor Related Probes

EWSR1 Split Gene Detection Kit

Probe Description: EWSR1
Product Code: CF1070
Specification: 10 tests/box, 20 tests/box



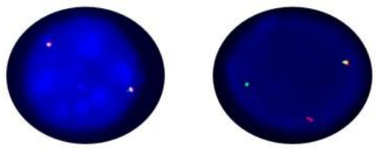
EWSR1 Normal EWSR1 Breakapart

Clinical Significance:

1. In more than 90% of Ewing's sarcoma patients (more than 20 years old), the EWSR1 gene may be split and fused with multiple genes such as FLI1 gene fusion (85%) and ERG gene fusion (10%).
2. It is used for auxiliary diagnosis of Ewing's sarcoma, as well as mucinous liposarcoma, connective tissue hyperplastic small round cell tumor, hemangioma-like fibrous histiocytoma, clear cell sarcoma and extraosseous mucinous chondrosarcoma.

FUS Breakapart Detection Kit

Probe Description: FUS
Product Code: CF1072
Specification: 10 tests/box, 20 tests/box



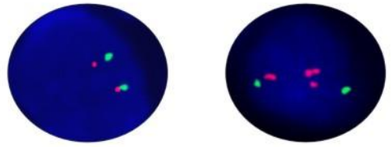
FUS Normal FUS Breakapart

Clinical Significance:

1. The FUS gene break probe can detect whether the FUS gene is broken and translocated, such as: in mucinous liposarcoma FUS occurs t (12; 16) (q13; p11) reciprocal translocation; in AML and ERG gene reciprocity Translocation with ATF1 gene in hemangioma-like fibrous histiocytoma; CREB3L2 translocation in fibromyxoid sarcoma
2. It can be used to assist in the diagnosis of soft tissue tumors, including myxoid liposarcoma, hemangioma-like fibrous histiocytoma, low-grade malignant fibromyxoid sarcoma, and acute myeloid leukemia.

MDM2 Gene Amplification Detection Kit

Probe Description: MDM2/Cep 12
Product Code: CF1073
Specification: 10 tests/box, 20 tests/box



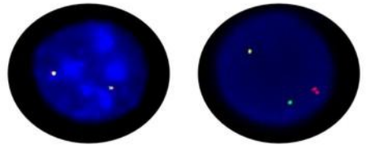
MDM2 Normal MDM2 Amplification

Clinical Significance:

1. MDM2 gene amplification can be used to assist in the differential diagnosis between well-differentiated liposarcoma and lipoma, help diagnose dedifferentiated liposarcoma, and well-differentiated osteosarcoma and benign or reactive bone lesions.
2. The gene amplification also occurred in osteosarcoma (16%) and esophageal cancer (13%).
3. Used to guide the treatment of MDM2 inhibitors.

SYT(SS18)Split Gene Detection Kit

Probe Description: SYT
Product Code: CF1075
Specification: 10 tests/box, 20 tests/box



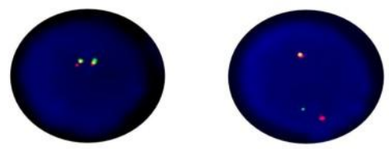
SYT Normal SYT Breakapart

Clinical Significance:

1. Characteristic chromosomal translocation t(X; 18) (p11.2; q11.2) occurs in more than 90% of patients with synovial sarcoma. This translocation causes the fusion of the SS18 gene on chromosome 18 with the SSX1 or SSXE gene on chromosome X.
2. Auxiliary diagnosis of synovial sarcoma.

FKHR Split Gene Detection Kit

Probe Description: FKHR
Product Code: CF1074
Specification: 10 tests/box, 20 tests/box



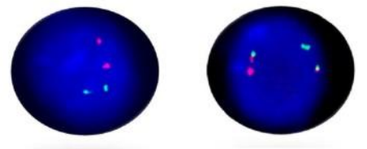
FKHR Normal FKHR Breakapart

Clinical Significance:

1. Rhabdomyosarcoma (RMS) is the most common soft tissue sarcoma in children. FKHR can translocate with the PAX3 and PAX gene families, accounting for more than 80%.
2. Auxiliary diagnosis of rhabdomyosarcoma.

ASPSCR1/TFE3 Gene Fusion Detection Kit

Probe Description: ASPSCR1/TFE3
Product Code: CF1076
Specification: 10 tests/box, 20 tests/box



ASPSCR1/TFE3 Fusion Negative ASPSCR1/TFE3 Fusion Positive

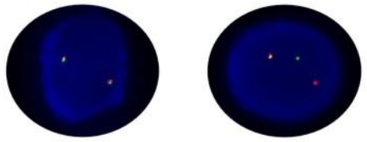
Clinical Significance:

1. More than 99% of alveolar soft tissue sarcoma contains specific genetic variation: der (17)t(X; 17) (p11.2; q25), forming an ASPSCR1/TFE3 gene fusion.
2. For assisting and differential diagnosis of acinar soft tissue sarcoma.
3. The genetic variant of renal cell carcinoma has a low incidence rate.

Renal Cell Carcinoma

TFE3 Split Gene Detection Kit

Probe Description: TFE3
Product Code: CF1080
Specification: 10 tests/box, 20 tests/box



TFE3 Normal TFE3 Breakapart

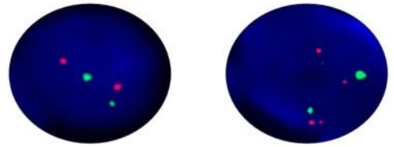
Clinical Significance:

1. Xp11.2 translocation renal cell carcinoma is common in children and rare in adults.
2. Clinical manifestations of perirenal lymph node metastasis.
3. Some studies have shown that Sunitinib is beneficial for prolonging progression-free survival.

Liver Cancer

AURKB Gene Amplification Detection Kit

Probe Description: AURKB/Cep 17
Product Code: CF1100
Specification: 10 tests/box, 20 tests/box



AURKB Normal AURKB Amplification

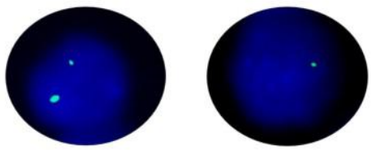
Clinical Significance:

1. AURKB gene status is closely related to tumor progression, tissue differentiation and metabolism, and can predict invasive recurrence of various tumors such as liver cancer and oral squamous cell carcinoma.

Retinoblastoma

Rb1 Gene Deletion Detection Kit

Probe Description: RB1
Product Code: CF1090
Specification: 10 tests/box, 20 tests/box



Rb1 Normal Rb1 Deletion

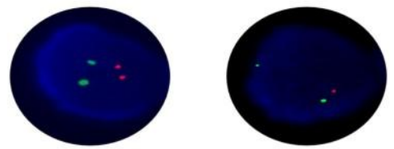
Clinical Significance:

1. Retinoblastoma is a type of immature retinal cell carcinoma in infants and children, and the RB1 gene is deleted in this tumor.
2. RB1 gene may also be deleted in leukemia/breast cancer/lung cancer/bladder cancer/esophageal cancer/prostate.

Oligodendroglioma

1p/19q Deletion Detection Kit

Probe Description: p36/1q21;19q13/19p13
Product Code: CF1110
Specification: 10 tests/box, 20 tests/box



1p36 and 1q21 Normal 19q13 Deletion

Clinical Significance:

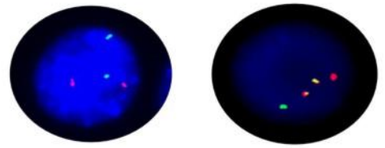
1. Oligodendroglioma shows specific genetic changes.
2. The most common genetic alteration is the loss of heterozygosity on the long arm of chromosome 19 (19q), which the common deletion region is located at 19q13.3 with an incidence of 50% to 80%.
3. Followed by the loss of heterozygosity on the short arm (1p) of chromosome 1, the incidence rate is 40% to 92%.
4. Oligodendroglioma with loss of chromosome 1p heterozygosity or simultaneous loss of 1p/19q is sensitive to chemotherapy, but loss of chromosome 19q heterozygosity is insensitive to chemotherapy.
5. 100% of cases with loss of heterozygosity on chromosome 1p/19q are 100% sensitive to the chemotherapy of PVC (procarbazine, lomustine, vincristine), with an average survival of 10 years. But the average number of cases without such genetic changes survival is only 2 years.
6. 1p/19q loss of heterozygosity is an independent and significant prognostic impact factor, even in relapsed cases with a relatively good prognosis.

Hematologic Tumor Probe

Acute Myeloid Leukemia (AML)

AML/ETO Gene Fusion Detection Kit

Probe Description: AML/ETO
Product Code: CF1120
Specification: 10 tests/box, 20 tests/box



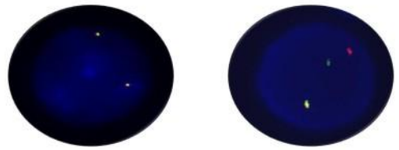
AML/ETO Negative AML/ETO Positive

Clinical Significance:

1. 20-40% of patients with AML-M2 have t (8; 21) (q22; q22), and the incidence rate is more than 90% in the M2b subtype, which is relatively rare in M1 and M4.
2. It is most often diagnosed in youth and children.
3. Mark for M2b classification and excellent prognosis.

CBFB Breakapart Detection Kit

Probe Description: CBFB
Product Code: CF1122
Specification: 10 tests/box, 20 tests/box



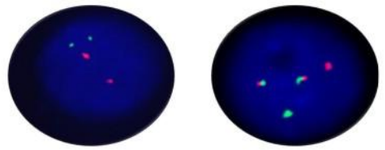
CBFB Normal CBFB Breakapart

Clinical Significance:

1. It is used to detect inv (16) (p13; q22). The incidence rate is 20% in patients with AML M4, less in M2, M5 and M4 (no eosinophilia). The prognosis is excellent.

PML/RARA Gene Fusion Detection Kit

Probe Description: PML/RARA
Product Code: CF1121
Specification: 10 tests/box, 20 tests/box



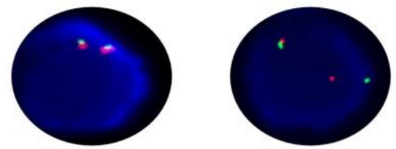
PML/RARA Negative PML/RARA Positive

Clinical Significance:

1. More than 95% of APL patients are associated with PML/RARA fusion genes, accounting for about 9% of all AML.
2. Mark for M3 classification and excellent prognosis.
3. Guiding the use of drugs, and the treatment of targeted drugs all-trans retinoic acid and arsenic trioxide and evaluation.

KMT2A(MLL) Breakapart Detection Kit

Probe Description: KMT2A
Product Code: CF1062
Specification: 10 tests/box, 20 tests/box



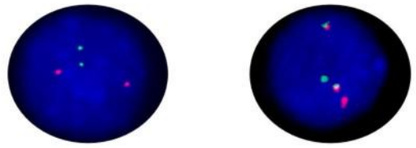
KMT2A Normal KMT2A Breakapart

Clinical Significance:

1. KMT2A gene is located at 11q23, this region is a common chromosome abnormality region, including translocation insertion and deletion.
2. KMT2A gene abnormalities are found in ML and LL, and the incidence rate is as high as 85% in children B-ALL, and can also be seen in lymphoma. It has poor prognosis and high risk of treatment failure.
3. Simple KMT2A breakapart in AML suggests medium prognosis.

CBFB/MYH11 Gene Fusion Detection Kit

Probe Description: CBFB/MYH11
Product Code: CF1124
Specification: 10 tests/box, 20 tests/box



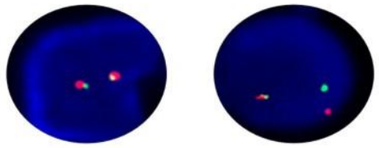
CBFB/MYH11 Negative　　CBFB/MYH11 Positive

Clinical Significance:

1. inv (16) (p13; q22) causes CBFB and MYH11 to fuse with each other. The breakarpart is located at intron 5 of CBFB and intron 5 of MYH11. The fusion protein can lead to a decrease in active CBF.
2. 2011 AML risk grouping in the NCCN guidelines shows that patients with inv(16) or t(16; 16) chromosome abnormalities have a better prognostic risk.
3. This probe can be used for specific detection whether CBFB is fused with MYH11.

AML（RUNX1）Breakapart Detection Kit

Probe Description: AML
Product Code: CF1126
Specification: 10 tests/box, 20 tests/box



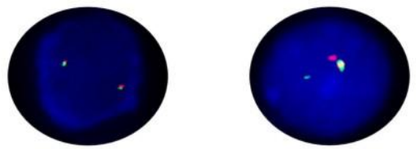
AML Normal　　AML Breakapart

Clinical Significance:

1. In acute leukemia, AML (RUNX1) gene breakapart and translocation are the most common genetic abnormalities, mainly translocating with TEL gene and ETO gene, and the prognosis is better.
2. It can also translocate with other chromosomes (1/2/3/4/6/9/16/20/X). The AML1 gene may also be amplified in children's ALL with poor prognosis.

RARA Breakapart Detection Kit

Probe Description: RARA
Product Code: CF1125
Specification: 10 tests/box, 20 tests/box



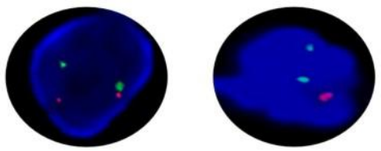
RARA Normal　　RARA Breakapart

Clinical Significance:

It is used to detect RARA gene breakapart and translocation with other genes.

5q Deletion Detection Kit

Probe Description: EGR1 /CSF1R
Product Code: CF1127
Specification: 10 tests/box, 20 tests/box



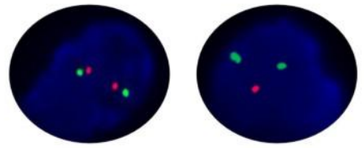
EGR1 and CSF1R Normal　　5q Deletion

Clinical Significance:

1. 5q long arm loss is the most common rearrangement in AML and MDS.
2. Chromosome 5 abnormalities account for more than 40% of treatment-related MDS, and the prognosis is poor.

7q Deletion Detection Kit

Probe Description: CUTL1 / 7q35
Product Code: CF1128
Specification: 10 tests/box, 20 tests/box



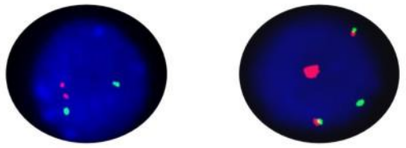
7q Normal　　7q Deletion

Clinical Significance:

1. The deletion of the entire chromosome 7 or the deletion of the entire long arm 7q is a recurrent abnormality of MDS, which occurs in about 5-10% AML (M4 and M6), about 15% adult MDS, 40% child MDS and 50% treatment-related AML/MDS.
2. Most of the deletions are in the q11-22 and q31-36 regions within 7q, with a poor prognosis.

MLL/MLLT3 Gene Fusion Detection Kit

Probe Description: MLL/MLLT3
Product Code: CF1130
Specification: 10 tests/box, 20 tests/box



MLL/MLLT3 Negative　　MLL/MLLT3 Positive

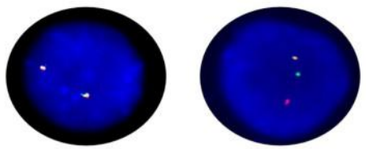
Clinical Significance:

1. The most common MLL rearrangement in children with AML and ALL less than 1 year old.
2. Patients with t(9;11) (p22;q23) MLL/MLLT3(AF9) rearrangements are more sensitive to chemotherapy response than patients with other MLL rearrangements.

Chronic Myelogenous Leukemia (CML)

EVI Breakapart Detection Kit

Probe Description: EVI
Product Code: CF1129
Specification: 10 tests/box, 20 tests/box



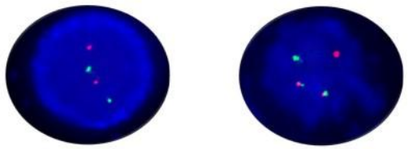
EVI Normal　　EVI Breakapart

Clinical Significance:

inv (3) (q21; q26) means that the prognosis is poor, involving EVI gene breakapart and translocation, leading to malignant proliferation of myeloid cells, which is reflected in the clinical features of infiltration and occurs in 5% of patients with AML and MDS.

ABL/BCR Fusion Gene Detection Kit

Probe Description: ABL/BCR
Product Code: CF1240
Specification: 10 tests/box, 20 tests/box



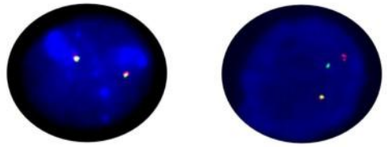
ABL/BCR Negative　　ABL/BCR Positive

Clinical Significance:

1. The BCR/ABL fusion gene is a marker of CML and is also present in 30% of adult ALL, about 10% of child ALL, and a small amount of AML. In ALL, it means that the prognosis is extremely poor.
2. Guiding medication, used to guide the use of targeted therapy Gleevec, treatment options and drug efficacy evaluation.

ASS Breakapart Detection Kit

Probe Description: ASS
Product Code: CF1241
Specification: 10 tests/box, 20 tests/box



ASS Normal

ASS Breakapart

Clinical Significance:

ASS gene deletion means that the prognosis is extremely poor, and it is easy to change rapidly in the chronic phase.

Chromosome 8 Detection Kit

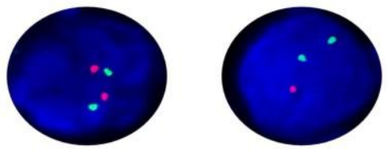
Probe Description: Cep8
Product Code: CF3008
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

1. Multibody on chromosome 8 accounts for about 34% of CML abnormalities, which is closely related to the myeloid cell blast crisis and basophilia.
2. It can be used to detect abnormal number of chromosome 8 in diseases such as CML/AML/MPD/MDS.

CHIC2 Gene Deletion Detection Kit

Probe Description: CHIC2/ FIP1L1
Product Code: CF1242
Specification: 10 tests/box, 20 tests/box



CHIC2 Normal

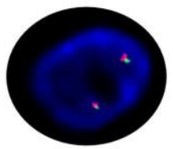
CHIC2 Deletion

Clinical Significance:

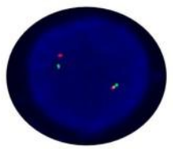
1. The fusion gene resulting from the fusion of FIP1L1 and PDGFR due to CHIC2 deletion is the target of imatinib in hypereosinophilic syndrome (HES).

PDGFRB Breakapart Detection Kit

Probe Description: PDGFRB
Product Code: CF1244
Specification: 10 tests/box, 20 tests/box



PDGFRB Normal



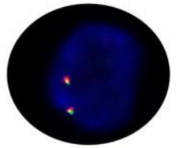
PDGFRB Breakapart

Clinical Significance:

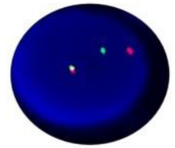
1. Judge whether the PDGFRB gene is broken or translocated
2. Imatinib treatment can achieve genetic remission in CMPDs with PDGFRB gene translocation and BCR/ABL negative, which is the target of imatinib.

FGFR1 Breakapart Detection Kit

Probe Description: FGFR1
Product Code: CF1245
Specification: 10 tests/box, 20 tests/box



FGFR1 Normal



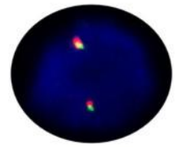
FGFR1 Breakapart

Clinical Significance:

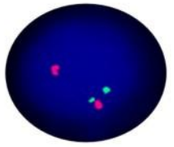
In 2008, WHO separated "Myeloid/lymphoid neoplasms with eosinophilia associated with rearrangements of PDGFRA, PDGFRB, or FGFR1" into a new category. Even if the three abnormal target groups are not accompanied by BCR/ABL fusion genes, they are sensitive to imatinib treatment.

JAK27 Breakapart Detection Kit

Probe Description: JAK2
Product Code: CF1247
Specification: 10 tests/box, 20 tests/box



JAK2 Normal



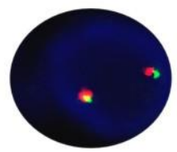
JAK2 Breakapart

Clinical Significance:

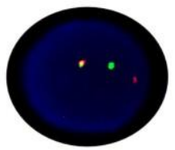
1. JAK 2 is a tyrosine kinase. JAK/STAT signaling pathway plays an important role in the proliferation and differentiation of hematopoietic stem cells.
2. It can assist in the diagnosis of chronic myeloproliferative diseases, and guide treatment and prognosis judgment.

NUP98 Breakapart Detection Kit

Probe Description: NUP98
Product Code: CF1246
Specification: 10 tests/box, 20 tests/box



NUP98 Normal



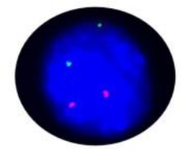
NUP98 Breakapart

Clinical Significance:

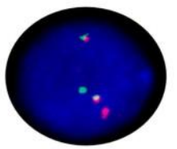
1. NUP98 (11p15) rearrangement exists in hematological malignancies including AML, ALL, CML-bc, MDS, etc.
2. More than 28 partner genes have been identified, all of which form fusion genes. Patients with NUP98 rearrangement have an aggressive clinical course and poor prognosis.

TEL(ETV6)/AML Gene Fusion Detection Kit

Probe Description: TEL/AML
Product Code: CF1250
Specification: 10 tests/box, 20 tests/box



TEL/AML Negative



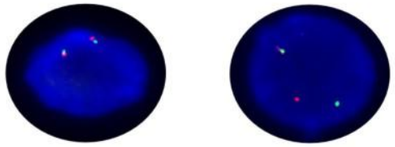
TEL/AML Positive

Clinical Significance:

1. 20-25% incidence of TEL/AML fusion gene in children B-ALL.
2. Good prognosis but easy to relapse.

TEL Breakapart Detection Kit

Probe Description: TEL
Product Code: CF1251
Specification: 10 tests/box, 20 tests/box



TEL Normal

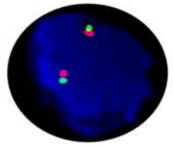
TEL Breakapart

Clinical Significance:

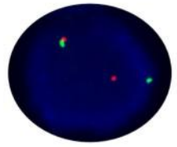
It can detect whether TEL breaks and fuses with other genes.

E2A Breakapart Detection Kit

Probe Description: E2A
Product Code: CF1253
Specification: 10 tests/box, 20 tests/box



E2A Normal



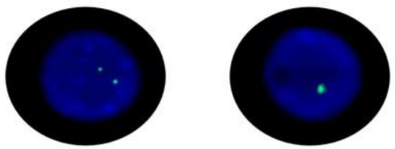
E2A Breakapart

Clinical Significance:

1. E2A gene can be fused with PBX1 and HLF genes, E2A/PBX1 is more common (5%), and E2A/HLF is less common (1%).
2. Approximately 5% of childhood ALL, both fusions mean poor prognosis and high risk of recurrence.
3. Karyotype analysis can easily lead to 20-25% missed diagnosis, and FISH can overcome this shortcoming.
4. These patients often relapse early after standard chemotherapy.

P16 Deletion Detection Kit

Probe Description: P16
Product Code: CF1252
Specification: 10 tests/box, 20 tests/box



P16 Normal

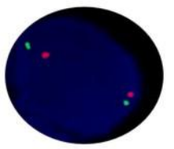
P16 Deletion

Clinical Significance:

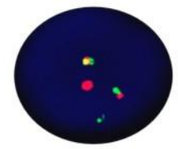
1.One of the most common abnormalities in ALL, including 10% of abnormalities in children ALL.
2.In T-ALL, most of them are homozygous deletions. In B-ALL, the proportion of homozygous and heterozygous deletions is equal, and the prognosis is poor.

E2A/PBX1 Fusion Gene Detection Kit

Probe Description: E2A/PBX1
Product Code: CF1254
Specification: 10 tests/box, 20 tests/box



E2A/PBX1 Negative



E2A/PBX1 Positive

Clinical Significance:

1.t(1;19)(q23;p13) accounts for about 5% of childhood ALL (25% of pre-B-cell ALL in children), which is relatively rare in adult ALL.
2.The protein products of the fusion gene include P85 and P77, which are a trans-acting factor with transformation ability.

Chromosome 4,10,17 Counts Detection Kit

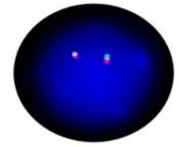
Probe Description: Cep4/ Cep10/ Cep17
Product Code: CF1255
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

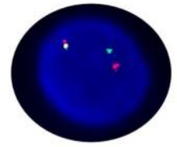
Detection of hyperdiploid, the prognosis involving chromosome 4/10/17 is relatively better.

IGH Breakapart Detection Kit

Probe Description: IGH
Product Code: CF1257
Specification: 10 tests/box, 20 tests/box



IGH Normal



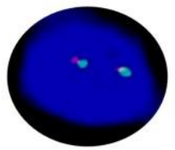
IGH Breakapart

Clinical Significance:

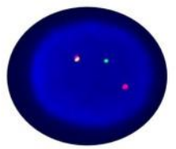
In ALL, IGH and C-MYC have the highest rate of mutual translocation. In T-ALL and B-ALL, translocation abnormalities of IGH and other genes are also common.

C-MYC Breakapart Detection Kit

Probe Description: C-MYC
Product Code: CF1256
Specification: 10 tests/box, 20 tests/box



C-MYC Normal



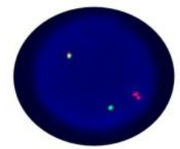
C-MYC Breakapart

Clinical Significance:

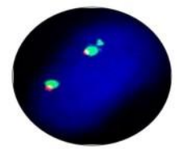
1. Abnormal C-MYC breakapart occurs in 5% of B-ALL patients and can be fused with multiple genes. About 75% of mature B-cell patients with acute leaching exhibit FAB ALL-L3 in morphology, often accompanied by typical t(8 ; 14) (q24; q32).
2. Abnormal MYC breakapart means that the prognosis is extremely poor, causing resistance to chemotherapy drugs, which leads to the rapid development of the disease. The clinical manifestation is more invasive.

MLL(KMT2A) Breakapart Detection Kit

Probe Description: MLL
Product Code: CF1062
Specification: 10 tests/box, 20 tests/box



MLL Normal



MLL Breakapart

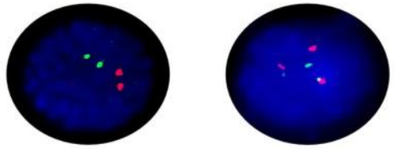
Clinical Significance:

1. MLL gene is located at 11q23, this region is a common chromosome abnormality region, including translocation insertion and deletion.
2. MLL gene abnormalities are found in ML and LL, and the incidence rate is as high as 85% in children B-ALL, and can also be seen in lymphoma. It has poor prognosis and high risk of treatment failure.
3. It is a sign of ALL with the worst prognosis.
4. These patients show a certain degree of drug resistance during the initial induction phase, and the induction remission rate is often lower than other types of ALL.

Chronic Lymphocytic Leukemia (CLL)

MLL/AFF1 Fusion Gene Detection Kit

Probe Description: MLL/AFF1
Product Code: CF1259
Specification: 10 tests/box, 20 tests/box



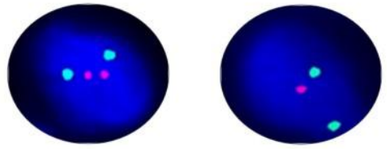
MLL/AFF1 Negative MLL/AFF1 Positive

Clinical Significance:

1. t(4;11) (q21;q23) MLL/AFF1 is the most common MLL-related translocation in ALL.
2. MLL/AFF1 fusion protein participates in self-renewal/differentiation of hematopoietic stem cells. The high expression causes poor prognosis, and ALL patients with MLL/AFF1 fusion have a high risk of treatment failure.

DLEU Gene Deletion Detection Kit

Probe Description: GSP DLEU /CSP13
Product Code: CF01270
Specification: 10 tests/box, 20 tests/box



DLEU Normal DLEU Deletion

Clinical Significance:

1. 13q14 (DLEU gene) homozygous or heterozygous deletion is the most common abnormality in CLL (more than 60%), and the incidence rate in MM is 16-40%. The prognosis is poor.
2. DLEU gene deletion can also be seen in the detection of MAF/IGH fusion genes in tumors such as lymphoma/myeloma/prostate cancer/head and neck cancer/non-small cell lung cancer.

Children ALL Chromosome and Gene Abnormality Detection Kit

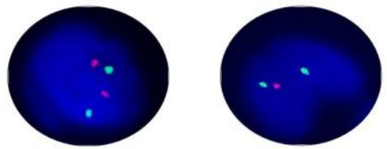
Probe Description: Cep4, Cep 10/Cep 17, TEL/AML, KMT2A, BCR/ABL
Product Code: CF1260
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

1. According to age at onset, number of newly diagnosed white blood cells, chromosomes and fusion genes, newly diagnosed CNS, testicular leukemia, the ratio of primitive naive cells of bone marrow induced by chemotherapy or MRD levels, COG classifies children ALL as low-risk [t(12;21)/TEL- AML1 or 4, 10, 17 trisomy], standard risk, high risk (KMT2A rearrangement) and high high risk [t (9; 22)/BCR-ABL].
2. 4, 10 and 17 trisomy are independent indicators of good prognosis.
3. TEL/AML1 is currently the most common chromosomal rearrangement in children with ALL, and is one of the indicators of good prognosis.
4. The incidence of MLL genetic changes in acute leukemia is about 5% to 10% and as high as 79% in infant ALL, which is a sign of poor prognosis. BCR/ABL accounts for 3% to 5% of children's ALL and is one of the most important poor prognosis factors. On January 25, 2013, FDA approved a new indication of Gleevec for the treatment of newly diagnosed children in Philadelphia with chromosome positive (Ph+) acute lymphoblastic leukemia (ALL).
5. Using multi-target detection to evaluate prognosis and treatment options for children with ALL.

P53 Gene Detection Kit

Probe Description: p53/Cep17
Product Code: CF1021
Specification: 10 tests/box, 20 tests/box



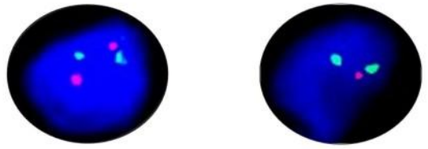
p53 Normal p53 Deletion

Clinical Significance:

The incidence rate of P53 deletion in B-CLL is about 17%, and the prognosis is poor.

ATM Gene Deletion Detection Kit

Probe Description: ATM/Cep11
Product Code: CF1272
Specification: 10 tests/box, 20 tests/box



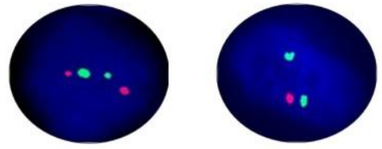
ATM Normal ATM Deletion

Clinical Significance:

1. The incidence rate of ATM gene deletion is 15-20% in B-cell CLL, which is related to disease infiltration. It has poor prognosis.
2. ATM gene deletion and P53 gene deletion are the most common deletion abnormalities in CLL, which can guide treatment options and prognosis evaluation.
3. It is one of the most common secondary chromosome abnormalities in mantle cell lymphoma.

6q Deletion Detection Kit

Probe Description: SEC63/Cep6
Product Code: CF1274
Specification: 10 tests/box, 20 tests/box



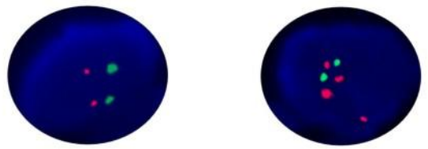
6q Segment Normal 6q Segment Deletion

Clinical Significance:

1. 6q deletion is the most common abnormality in lymphoma, which means poor prognosis in a variety of tumors including CLL6q.
2. The 6q deletion anomaly is the fourth common B-CLL anomaly, about 10%.
3. This probe can detect the small deletion region of 2Mb that cannot be distinguished by karyotyping.

C-MYC(8q24) Gene Amplification Detection Kit

Probe Description: C-MYC/Cep8
Product Code: CF1005
Specification: 10 tests/box, 20 tests/box



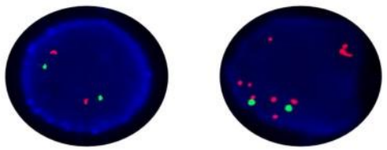
C-MYC Normal C-MYC Amplification

Clinical Significance:

1. C-MYC gene amplification occurs in a variety of tumors, such as bladder cancer/breast cancer/cervical cancer/lymphoma, with a 5% incidence rate in CLL.
2. It has a poor prognosis, but responds well to high-dose chemotherapy.

TERC Gene Amplification Detection Kit

Probe Description: TERC/Cep3
Product Code: CF1030
Specification: 10 tests/box, 20 tests/box



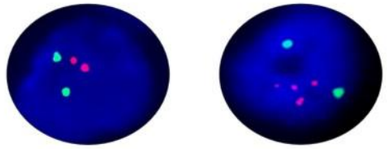
TERC Normal TERC Amplification

Clinical Significance:

It can detect small 1-2Mb amplified regions on 3q26.

GLI Gene Detection Kit

Probe Description: GLI/Cep12
Product Code: CF1276
Specification: 10 tests/box, 20 tests/box



GLI Normal

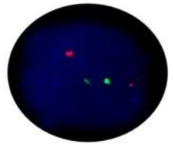
GLI Amplification

Clinical Significance:

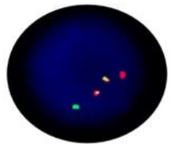
1. Trisomy 12 is the most common chromosome number abnormality in B-CLL.
2. GSP GLI is used to detect the amplification of the 12q13-15 region.

IGH/BCL2 Fusion Gene Detection Kit

Probe Description: IGH/BCL2
Product Code: CF1278
Specification: 10 tests/box, 20 tests/box



IGH/BCL2 Fusion Negative



IGH/BCL2 Fusion Positive

Clinical Significance:

The reciprocal translocation of IGH and BCL2 is the second most common translocation abnormality in CLL.

Chromosome 12 Detection Kit

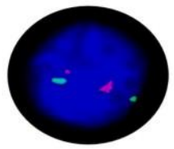
Probe Description: Cep12
Product Code: CF3012
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

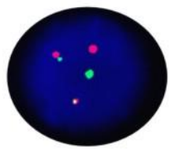
1. Abnormal number of chromosome 12 is the most common in B-CLL, with an abnormal rate of more than 55%.
2. Trisomy 12 indicates a decline in overall survival and requires early treatment.

CCND3/IGH Fusion Gene Detection Kit

Probe Description: CCND3/IGH
Product Code: CF1279
Specification: 10 tests/box, 20 tests/box



CCND3/IGH Fusion Negative



CCND3/IGH Fusion Positive

Clinical Significance:

About 40-60% of MM patients have IGH breakapart and translocation, and about 4% of them are IGH and CCND3 gene translocation.

CLL Chromosomes and Gene Abnormalities Detection Kit

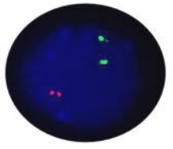
Probe Description: Cep17/P53, RB1/ATM, DLEU/Cep12
Product Code: CF1280
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

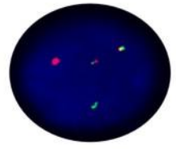
1. NCCN recommends the use of cytogenetic techniques (conventional karyotyping or FISH) to detect t(11; 14), t(11q; v), +12, del(11q), del(13q), del(17p) for newly diagnosed CLL Isosomal abnormalities.
2. About 80% of CLL patients have chromosome abnormalities, which are important for the diagnosis, differential diagnosis, treatment options and prognosis of CLL.
3. The prognosis of CLL patients with simple del(13q) is better. Normal Chromosomes and +12 have a moderate prognosis, while patients with del (11q) or del (17p) have a poor prognosis. Especially del(17p) patients is the worst prognosis.
4. New genetic abnormalities may be acquired during disease development. Patients with disease progression, relapse, and drug resistance should undergo cytogenetic evaluation again before starting new treatment.
5. For patients with treatment indications, stratify according to FISH results and choose different treatment options.

BCL1/IGH Fusion Gene Detection Kit

Probe Description: BCL1/IGH
Product Code: CF1291
Specification: 10 tests/box, 20 tests/box



BCL1/IGH Fusion Negative



BCL1/IGH Fusion Positive

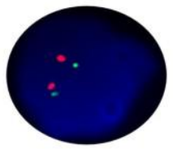
Clinical Significance:

1. Mantle cell lymphoma is a subtype of NHL with poor prognosis.
2. t (11; 14) (p13; q32) occurs in 75% of mantle cell lymphoma (MCL) and can be used to assist in the diagnosis of such tumors.
3. Used to identify MCL and CLL.

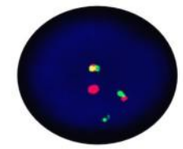
Lymphoma

C-MYC/IGH Fusion Gene Detection Kit

Probe Description: C-MYC/IGH
Product Code: CF1290
Specification: 10 tests/box, 20 tests/box



C-MYC/IGH Fusion Negative



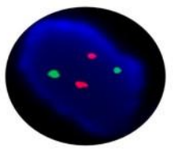
C-MYC/IGH Fusion Positive

Clinical Significance:

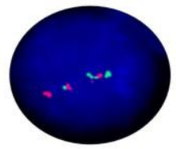
1. t (8; 14) can be used to assist in the diagnosis of Burkitt lymphoma (BL) (75% incidence).
2. Guide the treatment of high-grade B-cell lymphoma with poor prognosis.

MYEOV/IGH Fusion Gene Detection Kit

Probe Description: MYEOV/IGH
Product Code: CF1292
Specification: 10 tests/box, 20 tests/box



MYCOV/IGH Fusion Negative



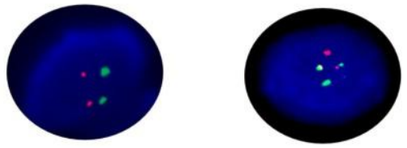
MYCOV/IGH Fusion Positive

Clinical Significance:

t (11; 14) (q13; q32) has a 15-20% incidence rate in MM, which is a common translocation abnormality.

BCL2/IGH Gene Fusion Detection Kit

Probe Description: BCL2/ IGH
Product Code: CF1278
Specification: 10 tests/box, 20 tests/box



BCL2/IGH Fusion Negative

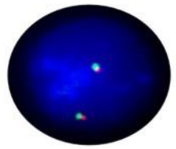
BCL2/IGH Fusion Positive

Clinical Significance:

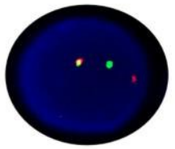
1. t(14;18) translocation occurred in 85% of follicular lymphomas (FL) and 1/3 of diffuse lymphomas (DL), with poor prognosis.
2. Burkitt's lymphoma morphologically suggests a typical age, morphology and immunophenotype. If any of these three characteristics are atypical or have a history of follicular lymphoma, accompanied by MYC breakapart and BCL2 breakapart should be diagnosed as a gray zone lymphoma between Burkitt/DLBCL.

MALT Breakapart Detection Kit

Probe Description: MALT
Product Code: CF1295
Specification: 10 tests/box, 20 tests/box



MALT Normal



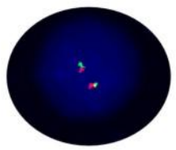
MALT Breakapart

Clinical Significance:

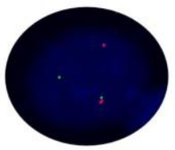
1. There are two main translocations of MALT gene t (11; 18) (q21; q21) and t (14; 18) (q32; q21).
2. This probe is used to assist in the diagnosis of mucosa-associated lymphoid tissue lymphoma (MALT) and related to the selection of HP chemotherapy.

IGH Breakapart Detection Kit

Probe Description: IGH
Product Code: CF1257
Specification: 10 tests/box, 20 tests/box



IGH Normal



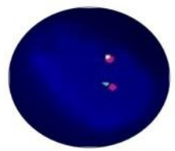
IGH Breakapart

Clinical Significance:

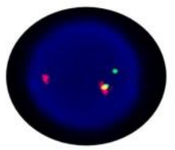
1. IGH breakapart and translocation occur in 50% B-cell NHL and many other types of lymphoma, which can translocate with more than 50 genes.
2. This probe is used to detect whether the IGH gene is broken and translocated.

BCL1 Breakapart Detection Kit

Probe Description: BCL1
Product Code: CF1296
Specification: 10 tests/box, 20 tests/box



BCL1 Normal



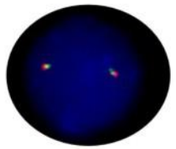
BCL1 Breakapart

Clinical Significance:

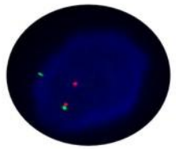
CCND1 breakapart and translocation can occur in leukemia, MM and some benign thyroid tumors.

BCL6 Breakapart Detection Kit

Probe Description: BCL6
Product Code: CF1297
Specification: 10 tests/box, 20 tests/box



BCL6 Normal



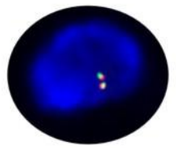
BCL6 Breakapart

Clinical Significance:

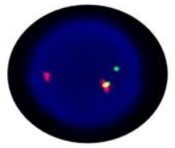
1. In diffuse large B NHL, the BCL6 gene can translocate with multiple genes, with an incidence rate of 20-40% and 5-15% in follicular lymphoma.
2. Burkitt's lymphoma morphologically suggests a typical age, morphology and immunophenotype. If any of these three characteristics are atypical or have a history of follicular lymphoma, accompanied by MYC breakapart and BCL2 breakapart should be diagnosed as a gray zone lymphoma between Burkitt/DLBCL.
3. This probe is used to detect whether the BCL6 gene is broken and translocated. BCL6 breakapart is an independent detection index for evaluating survival rate and recovery rate.

BCL2 Breakapart Detection Kit

Probe Description: BCL2
Product Code: CF1299
Specification: 10 tests/box, 20 tests/box



BCL2 Breakapart Negative



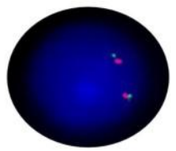
BCL2 Breakapart Positive

Clinical Significance:

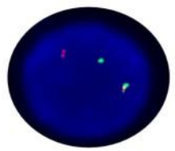
1. BCL2 gene abnormality; poor prognosis for patients; It is an independent prognostic indicator of DLBCLBCL2.
2. Due to overexpression of BCL2 during chemotherapy, the concentration of chemotherapy drugs is reduced, which can enhance the regeneration ability of tumor cells, showing that it is related to patient resistance.
3. BCL2/IGH translocation occurs in 85% of follicular lymphomas and about 1/3 of diffuse lymphoma DL. The prognosis is poor.
4. Differential Diagnosis
Burkitt's lymphoma morphologically suggests a typical age, morphology and immunophenotype. If any of these three characteristics are atypical or have a history of follicular lymphoma, accompanied by MYC breakapart and BCL2 breakapart should be diagnosed as a gray zone lymphoma between Burkitt/DLBCL.

ALK Breakapart Detection Kit

Probe Description: ALK
Product Code: CF1010
Specification: 10 tests/box, 20 tests/box



ALK Norma



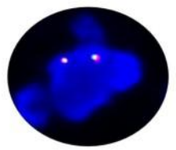
ALK Breakapart

Clinical Significance:

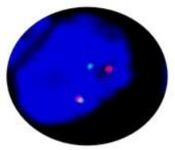
1.About 60%-85% of cases of anaplastic large cell lymphoma (ALCL) express anaplastic lymphoma kinase (ALK) fusion protein, which is caused by the breakapart of the ALK gene locus on chromosome 2 and fusion with other genes. The 5-year survival rate of patients with ALK gene fused with other genes (ALK positive) is much better than that of ALK negative patients (about 70% vs 30%), and the overall survival rate is much better than the latter.
2.Chromosomal translocation and ALK expression have been prescribed by WHO as one of the clinical diagnostic indicators of ALCL, and are the targets of the drug crizotinib.

CMYC Breakapart Detection Kit

Probe Description: C-MYC
Product Code: CF1256
Specification: 10 tests/box, 20 tests/box



CMYC Breakapart Negative



CMYC Breakapart Positive

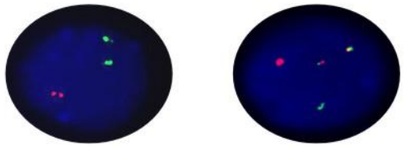
Clinical Significance:

1. Burkitt lymphoma (BL) is a highly invasive B-cell non-Hodgkin's lymphoma. About 80% of BL cases have t(8; 14) (q24; q32); about 15% of BL cases have t(2; 8) (p11; q24); about 5% have t(8; 22) (q24: q11). Chromosome translocation leading to c-myc breakapart and reorganization may be a sign of BL, which can be used in the clinical diagnosis of BL.
2. Myc gene rearrangement is one of the main causes of Myc protein expression. Myc gene amplification can also cause Myc protein expression. And recent studies have suggested that Myc gene amplification may also affect the prognosis of DLBCL patients. Therefore, the detection of different abnormal forms of the Myc gene has important clinical guidance for the correct evaluation of the patient's prognosis and the development of a reasonable treatment plan.

Multiple Myeloma

BCL1/IGH Gene Fusion Detection Kit

Probe Description: BCL1/ IGH
Product Code: CF1291
Specification: 10 tests/box, 20 tests/box



BCL1/IGH Fusion Negative

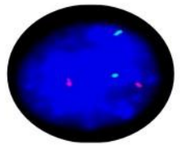
BCL1/IGH Fusion Positive

Clinical Significance:

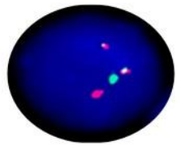
1. T (11;14) is the most common abnormal translocation in MM.
2. It is used as auxiliary diagnosis of mantle cell lymphoma (MCL).

FGFR3/IGH Gene Fusion Detection Kit

Probe Description: FGFR3/IGH
Product Code: CF1302
Specification: 10 tests/box, 20 tests/box



FGFR3/IGH Fusion Negative



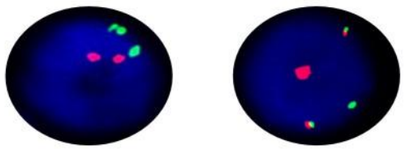
FGFR3/IGH Fusion Positive

Clinical Significance:

T (4;14) (P16;Q32) occurred in 10%MM patients.This translocation could not be detected by routine karyotype analysis, and the prognosis was poor and the response to chemotherapy was poor.

MAF/IGH Gene Fusion Detection Kit

Probe Description: MAF/IGH
Product Code: CF1301
Specification: 10 tests/box, 20 tests/box



MAF/IGH Fusion Negative

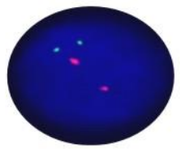
MAF/IGH Fusion Positive

Clinical Significance:

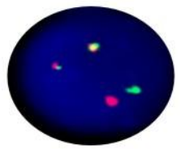
1. T (14;16) (Q32;Q22) occurs in 2-6% primary MM, mostly in non-hyperdiploid tumors (NHRD) in MGUS, and is related to the early occurrence of tumors.

MAFB/IGH Gene Fusion Detection Kit

Probe Description: MAFB/IGH
Product Code: CF1303
Specification: 10 tests/box, 20 tests/box



MAFB/IGH Fusion Negative



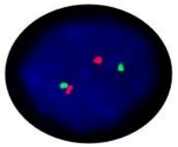
MAFB/IGH Fusion Positive

Clinical Significance:

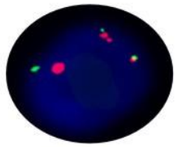
T (14;20) The translocation occurred in 2%MM patients with poor prognosis.

CCND3/IGH Gene Fusion Detection Kit

Probe Description: CCND3/ IGH
Product Code: CF1279
Specification: 10 tests/box, 20 tests/box



CCND3/IGH Fusion Negative



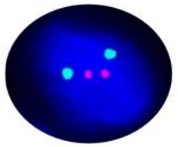
CCND3/IGH Fusion Positive

Clinical Significance:

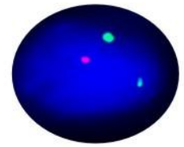
There are about 40-60% of patients with D MM whom had IGH gene fracture and translocation, among which about 4% had mutual translocation of IGH and CCND3 genes.

p53 Gene Detection Kit

Probe Description: P53/17
Product Code: CF1021
Specification: 10 tests/box, 20 tests/box



p53 Normal



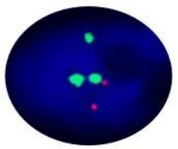
p53 Breakapart

Clinical Significance:

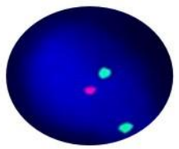
1. The incidence of P53 deletion is 1/3 in new MM.
2. It means shortened survival and poor prognosis for patients with conventional chemotherapy.

11q23 and DLEU Gene Abnormality Detection Kit

Probe Description: 11q23/DLEU
Product Code: CF1305
Specification: 10 tests/box, 20 tests/box



11q23 Segment Amplification



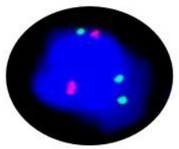
DLEU Deletion

Clinical Significance:

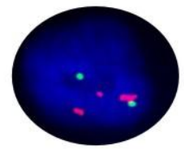
1. 11Q23 region is the most common amplification region in MM.
2. 13Q14 (DLEU) is a common missing area in newly developed MM.

15q22 and 6q21 Gene Abnormality Detection Kit

Probe Description: 15q22/6q21
Product Code: CF1307
Specification: 10 tests/box, 20 tests/box



6q21 Segment Amplification



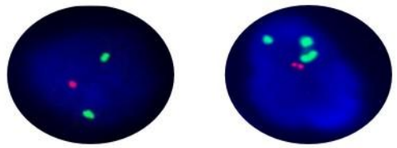
15q22 Segment Amplification

Clinical Significance:

1. 6Q21 will be amplified in MM and CLL.
2. 15Q22 is amplified in MM.

1q21 and 1p36 Gene Abnormality Detection Kit

Probe Description: 1q21/1p36
Product Code: CF1308
Specification: 10 tests/box, 20 tests/box



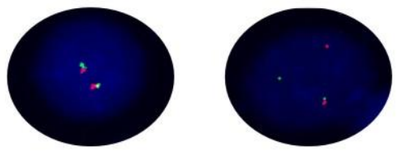
1P36 Segment Deletion　　1q21 Segment Amplification

Clinical Significance:

1. 1Q21 (CKS1B) is the most common genetic abnormality in MM. CKS1B gene amplification leads to up-regulation of cell cycle and thus causes many proliferative diseases.
2. 1Q21 amplification was often associated with MM infiltration phenotype, with poor prognosis and rapid disease progression.
3. Deletion of 1P32-36 occurs in 16%MM, which leads to the loss of tumor suppressor genes and the occurrence of proliferative diseases
4. This probe can detect 1P deletion and 1Q21 regional amplification.

IGH Breakapart Detection Kit

Probe Description: IGH
Product Code: CF1309
Specification: 10 tests/box, 20 tests/box



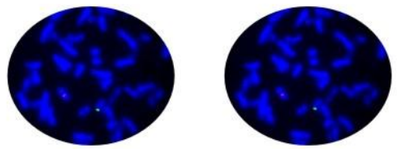
IGH Normal　　IGH Breakapart

Clinical Significance:

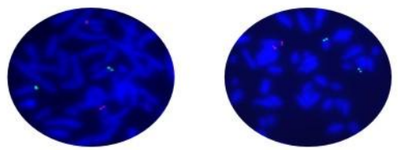
1. IGH gene breakapart and translocation are complex, involving multiple genes, and are commonly found in ALL ,MM and lymphoma.
2. It can be used to detect whether IGH gene is abnormal or small residual lesions
3. IGH gene fragmentation can be used as a marker of malignant cloning of myeloma cells, which is not affected by clinical stage or immune type, and can be used as one of the favorable bases for MM diagnosis.

[IGH/CCND1]/[IGH/MAF]/[IGH/MAFB]/[IGH/FGFR3] Fusion Gene Probe Detection Kit (Fluorescence in Situ Hybridization)

Probe Description: [IGH/CCND1]/[IGH/MAF]/[IGH/MAFB]/[IGH/FGFR3]
Product Code: CF1236
Specification: 5tests/box, 10 tests/box, 20 tests/box



CCND1/IGH　　MAFB/IGH



MAF/IGH　　FGFR3/IGH

Clinical Significance:

1.Multiple myeloma diagnosis and treatment guidelines suggest that FISH detection sites include: IGH translocation, 17p- (P53 deletion), 13q14 deletion, 1q21 amplification. If FISH detects positive IGH translocation, then further testing for t(4;14), t(11;14), t(14;16), t(14;20), etc. The average survival time of MM with t(4;14) is 644 days, but the expression of FGFR3 has no significant relationship with the survival time. The effect of t(4;14) on the prognosis does not depend on FGFR3. MM with t(4; 14) (p16; q32) patients cannot obtain survival advantages even if they receive high-dose chemotherapy.
2.It will have a better effect on patients who have t(11: 14)(q13; q32) translocation to receive chemotherapy combined with autologous hematopoietic stem cell transplantation.
3.t(14;20)(q32;q12), t(14;16)(q32;q23) are high-risk groups, which have short survival time and poor prognosis.

Multiple Myeloma Gene Abnormality Detection Kit

Probe Description: D13S319/p53, 1q21/ RB1, IGH
Product Code: CF1310
Specification: 10 tests/box, 20 tests/box

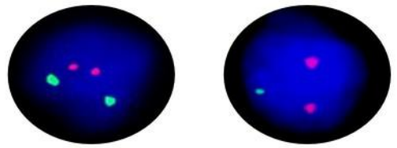
Clinical Significance:

1.《 American Consensus Guidelines for Stratification and Risk Adaptation for Myeloma (mSMART)》 indicates that the abnormal markers are detected by FISH for newly diagnosed MM and relapsed MM in order to do the risk grading of myeloma, and different treatment plans and risk assessment.
2.《 NCCN MM 2013》 (1st version) indicates the bone marrow testing in the initial diagnosis of different patients should include routine chromosome karyotype analysis and FISH detection of plasma cells taken from bone marrow puncture.The markers include T (4;14) ,t (14;16), 17 p13 deletion, t (11;14), the chromosome 13 deletion and the chromosome 1 amplification.

Myelodysplastic Syndromes (MDS)

5q Deletion Detection Kit

Probe Description: EGR1 /CSF1R
Product Code: CF1127
Specification: 10 tests/box, 20 tests/box



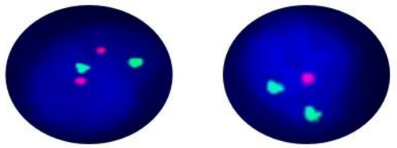
5q Segment Normal　　5q Segment Deletion

Clinical Significance:

1. 5Q long arm deletion is the most common abnormal in AML and MDS. The Abnormalities on chromosome No. 5 is accounted for more than up to 40% of treatment-related MDS.
2. The internal deletion of 5Q (5Q31-Q33) occurs in 10-15% of MDS patients , The result has a good prognosis.
3. 5Q deletion syndrome is an independent molecular type newly added by WHO in 2000. The majority of female patients have a better prognosis.

20q Deletion Detection Kit

Probe Description: PTPRT/Cep20
Product Code: CF01322
Specification: 10 tests/box, 20 tests/box



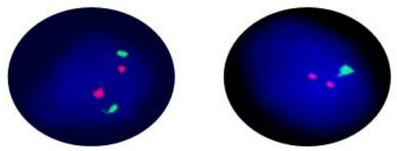
20q Segment Normal　　20q Segment Deletion

Clinical Significance:

1.The deletion of 20q was found in MPD, MDS(4%), AML(1%) and other diseases. It has a good prognosis.
2.The deletion of 12 microregions of 20q was found in MPD and MDS.

7q Deletion Detection Kit

Probe Description: CUTL1 /7q35
Product Code: CF1128
Specification: 10 tests/box, 20 tests/box



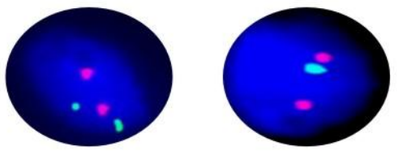
7q Segment Normal　　7q Segment Deletion

Clinical Significance:

1. The deletion of the entire chromosome 7 or the entire long arm 7q is a recurrent abnormality of MDS. It happens in approximately 5-10% AML(M4 and M6) ,in approximately 15% adult MDS, 40% child MDS and 50% treatment-related AML/MDS. Most of the deletion region are q11-22 and Q31-36 within 7q.
2. It has poor prognosis and often prone to infection and leukocyte transformation.

EGR1 Deletion Detection Kit

Probe Description: TERT/ EGR1
Product Code: CF1323
Specification: 10 tests/box, 20 tests/box



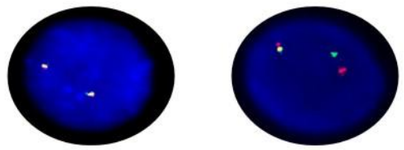
EGR1 Normal　　EGR1 Detection

Clinical Significance:

The 5Q31 region deletion can be detected in MDS and AML.

EVI Breakapart Detection Kit

Probe Description: EVI
Product Code: CF1129
Specification: 10 tests/box, 20 tests/box



EVI Normal

EVI Breakepart

Clinical Significance:

1. Inv (3) (q21;Q26) indicates poor prognosis. It is involved in the breakepart and translocation of EVI gene, leading to malignant proliferation of myeloid cells, which is characterized by infiltration.
2. It occurred in 5%AML and MDS patients.

MDS Chromosome and Gene Abnormalities Detection Kit

Probe Description: 5q31/TERT, 5q33/TERT, Cep 7/D7S486, Cep7/D7S522, Cep8/D20S108, Cep X/Cep Y
Product Code: CF1326
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

1.《MDS Vienna Diagnostic Criteria》 indicates that the typical chromosomal abnormality detection includes -5,-5Q,-7,-7Q,+ 8,-20Q and -Y.
2. The book,《 WHO tumor classification series -- hematopoietic and lymphoid tissue tumor pathology and genetics》, divided cytogenetic changes into three risk groups as prognostic factors such as good prognosis (low risk group) including cytogenetic normal, DEL (5Q) DEL (20Q) and the abnormal of -Y alone , as well as poor prognosis (high-risk group) including complex cytogenetic abnormalities， namely ⩾3 recurrent abnormalities or chromosome 7 abnormalities,additionally,moderate prognosis (medium risk group) including other cytogenetic abnormalities.
3. It is used to evaluate the prognosis of MDS patients by the multitarget detection.

Congenital Fibrosarcoma & Secretory Carcinoma of Breast Congenital & Mesodermal Nephroma（Multiple Cancers）

Chromosome number Detection Kit of X and Y

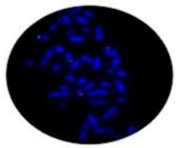
Probe Description: Cep X/ Cep Y
Product Code: CF1325
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

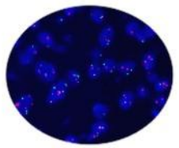
1. To monitor the effect of bone marrow transplantation for sex chromosome mismatch.
2. The bone marrow transplantation for hematological diseases. (CML/AML/MPD/CLL/MDS or other identified diseases such as polycythemia eukaryotes lymphoproliferative disorder).

ETV6/NTRK3 Fusion Gene T (12; 15) Detection Kit (Fluorescence in Situ Hybridization)

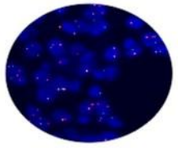
Probe Description: ETV6/NTRK3
Product Code: CF1078
Specification: 5 tests/box; 10 tests/box, 20 tests/box



NTRK3



NTRK3/ETV6 Fusion



ETV6 Breakepart

Clinical Significance:

1. Vitrakvi is the first FDA-approved oral TRK inhibitor to be marketed and also the first "broad-spectrum" anticancer drug that has nothing to do with tumor type. Targeted therapy for patients with NTRK gene (NTRK1/2/3) fusion , including: lung cancer, thyroid cancer, melanoma, gastrointestinal cancer, colon cancer, soft tissue sarcoma, salivary glands, infantile fibrosarcoma, appendix cancer, breast cancer, cholangiocarcinoma, pancreatic cancer etc.

EBER (RNA ISH probe)

	Code	Classification	Specification
EBER Probe	CF6001	Manual	25T/50T/100T
	CF6002	Automated	25T/50T/100T

With the deeper realizing about EBV (Epstein-Barr Virus, EBV), it has attracted more and more attention. EBV is also known as human herpes virus type 4 (HHV-4).

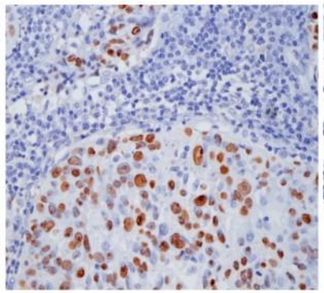
Researches show that 95% of people worldwide have been infected with the virus. People who are infected with the virus first are asymptomatic, but a few can develop infectious mononucleosis. Once infected, EBV will be lurking in human B cells, and the infected people will become a lifelong carrier. The study found that latent EBV is not static, but has been carrying out slow biological activities. In a few specific cases, EBV can also change from a latent state to a proliferating state. Latent EBV infection is related to nasopharyngeal carcinoma and lymphoid tissue diseases (Hodgkin's lymphoma, Burkitt lymphoma, NK/T cell lymphoma, angioimmunoblastic lymphoma, enteropathy T cell lymphoma, lymphoid granuloma, infectious mononucleosis, etc.). Once infected with EBV, the infected people will carry the virus for life. EBV has the characteristics of infection and transformation of B cells, which can transform small lymphocytes into immortal lymphoblastoid cells.

There are 11 kinds of EBV latent gene expression now: core antigens (EBNA-1, EBNA-2, EBNA-3A, 3B, 3C, EBNA-LP), latent membrane proteins (LMP-1, LMP2A, 2B), and short mRNA (EBNA-1 and EBER-2). According to the expression of EBV in different tumors, it is currently divided into three types: latent type I (EBNA-1 and EBERs), latent type II (EBNA-1, LMP-1, -2A, -2B, EBERs), and latent III (EBNA-1, -2, -3A, -3B, 3C, -LP, LMP-1, -2A, -2B, EBERs).

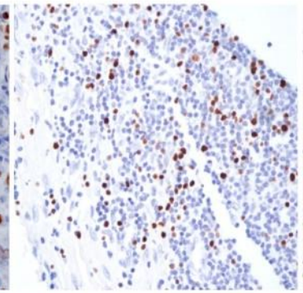
When determining the relationship between EBV and disease, EBER in situ hybridization has become a recognized standard method.

The EBER probe is a DNA probe labeled with digoxin, which can specifically bind to EBER1 and EBER2. It has high specificity and sensitivity.

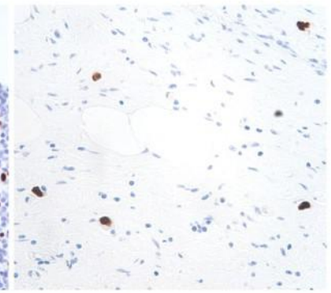
EBER Probe-Manual Reagents



Nasopharyngeal Carcinoma EBER Positive



Lymphoma EBER Positive

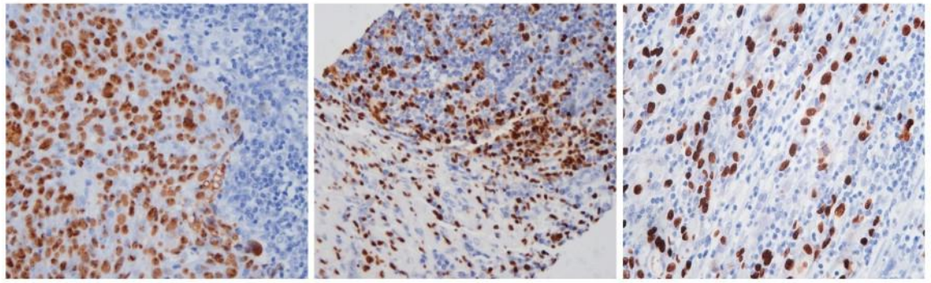


Gastric Carcinoma EBER Positive

Result Photos (Manual)

Main Components			
EBER Probe	Polymer	Pepsin working solution	Tween-20
Anti-digoxin antibody	DAB Substrate	Hematoxylin staining solution	EBER Positive Control
Linker	DAB Buffer	PBS	DAB Enhancer

EBER Probe-Automated Reagents



Nasopharyngeal Carcinoma EBER Positive　　Lymphoma EBER Positive　　Gastric Carcinoma EBER Positive

Result Photos（Automated）

Main Components	
EBER Probe	DAB Enhancer
Anti-digoxin Antibody	EBER Positive Control
Pepsin Solution	MicroStacker™

Clinical Significance of EBER Detection:

1. Find the cause: Distinguish whether it is latent infection of EBV or disease state caused by EBV infection.

2. Identify non-neoplastic diseases such as infectious mononucleosis and chronic active EBV infection.

3. Differential diagnosis of neoplastic diseases, such as HIV-associated lymphoma, Burkitt lymphoma, Hodgkin's lymphoma, nasal NK/T lymphoma, nasopharyngeal carcinoma, and lymphoepithelial carcinoma.

4. Guide treatment and prognosis:

1）EBV infectious diseases: Antiviral treatment, good prognosis

2）Lymphoproliferative diseases after organ transplantation: Better early prognosis

3）EBV-positive non-Hodgkin's lymphoma has a worse prognosis than EBV-negative. EBV-positive Hodgkin's lymphoma has better or no significant difference in prognosis than EBV-negative.

4）Nasal NK/T cell lymphoma has poor prognosis.

Prenatal Diagnosis Probe

Breast Cancer-Related Probe

Prenatal Numerical Abnormalities of Chromosomes Detection Kit

Probe Description: Cep X/ Cep Y/ Cep 18, Cep 13/ Cep 21
Product Code: CF1330
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

1.The chromosome number abnormalities of 13, 18, 21, X and Y is accounted to reach 95 percentage of chromosome abnormalities in newborns, which are trisomy 13 (1/10000), trisomy 18 (1/6000), trisomy 21 (Down syndrome)(1/660), Klinefelter syndrome (47, XXY), triple X syndrome (47, XXX), Turner syndrome (45,X) and (47, XYY).
2. As prenatal diagnosis, amniotic fluid or villous cells can be used to operate detection with a high success rate, and without cell culture and karyotype analysis, thus this detection kit could eliminate the problem of low success rate of karyotype analysis.
3. The detection time is short and the results can be obtained in one day, which can relieve the anxiety of pregnant women and buy time for the choice of treatment plan.
4.The Clinical consultation can be provided based on test results.

13/16/18/21/22/X/Y Chromosome Number Detection Kit

Probe Description: Cep 13/Cep 21;Cep X/Cep Y/Cep 18;Cep 16/Cep 22
Product Code: CF1331
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

1.In spontaneous abortion, the incidence of chromosome abnormality in embryos was up to 50%~60%, and the chromosome number abnormality was as high as up to 90%.
2. Among the chromosome number abnormalities, autosomal trisome are at first, in which 13,16, 18, 21, 22 were the most common. 16 chromosome is accounted for one-third of total approximately. 45 and X monomer are second followed others .
3. The detection of abnormal chromosome number can clarify the cause of abortion, and assess the risk of recurrent abortion as well as the possibility of fertility of abnormal chromosome fetus.
4. The detection time is short and the results can be obtained in one day, which can relieve the anxiety of pregnant women and for the choice of treatment against time.
5.Clinical consultation can be provided based on test results.

Chromosome number detection kit of X and Y

Probe Description: Cep X/ Cep Y
Product Code: CF1332
Specification: 10 tests/box, 20 tests/box

Clinical Significance:

1.Prenatal diagnosis
2.It is used to detect whether the number of sex chromosomes is abnormal.

FISH Consumables

Pre-treatment Kit of Paraffin Tissue Sample

Cat. No.: CF4001
Specification: 250ml ×4, 1000ml ×4

Description	Components	Specification	
Pre-treatment buffer	Citrate Buffer	250mL	1000mL
Washing solution I	2×SSC, NP40	250mL	1000mL
Washing solution II	2×SSC, NP40	250mL	1000mL
Pepsin dry powder	Pepsin	5×0.1g	20×0.1g

This product is suitable for most of the FISH probes on the market, and can achieve good compatibility with ready-to-use reagents, without complicated preparation process. It is convenient and fast to use all kinds of FISH pretreatment processes applicable to paraffin tissue samples, which can improve the stability and repeatability of FISH detection.

Pre-treatment Kit of PB(Blood Marrow)

Cat. No.: CF4002
Specification: 250ml ×4, 1000ml ×4

Description	Components	Specification	
Pre-treatment buffer	Potassium chloride	250mL	1000mL
Washing buffer I	2×SSC, NP40	250mL	1000mL
Washing buffer II	2×SSC, NP40	250mL	1000mL
Pepsin dry powder	Pepsin	5×0.1g	20×0.1g

This product is utilized for FISH detection of peripheral blood (bone marrow) sample pre-treatment. It is ready-to-use reagent, no need of complicated preparation process, so it is easy to use and fast result. The stability and repeatability of FISH detection can be improved sharply.