

Fluorescence in situ hybridization (FISH) is a molecular diagnostic technique utilizing labeled DNA probes to detect or confirm gene or chromosome abnormalities; often used in oncology decision-making.

Our FISH probes offer:

- ✓ Full customization (dye, fusions, quantity)
- ✓ High sensitivity & specificity
- ✓ Easy to follow standard protocols

Solid Tumor Pathology

Lung Cancer

- NTRK1 (1q23)
- ALK (2p23)
- VHL (3p25)
- PIK3CA (3q26)
- FGFR3 (4p16.3)
- PDGFR- α (4q12)
- TERT (5p15.33)
- NPM1 (5q35)
- PHF1 (6q21.3)
- EGFR (7p11)
- MET (7q31.2)
- FGFR1 (8p11.23-p11.22)
- PREX2 (8q13)
- RET (10q11)
- FGFR2 (10q26)
- WT1 (11p13)
- CCND1 (11q13)
- AKT1 (14q32)
- BCL2 (18q21.3)
- EML4/ALK (2p21/2p23)
- CREB1 (2q34)
- TP63 (3q28)
- VEGFR2 (4q12)
- CD74-ROS1 (5q33/6q22)
- ROS1 (6q22)
- KIF5B-RET (10p11-q11)
- PTEN (10q23)
- TFE3 (Xp11)

Nodular fasciitis / Aneurysmal Cyst

- USP6 (17p13)

Alveolar Rhabdomyosarcoma (ARMS)

- CDK4 (12q13)
- FOXO1 (13q14)

Breast Cancer

- REL (2q16)
- MAF (16q22-q23)
- HER2 (17q12)
- BCL2 (18q21.3)
- TOP2A (17q21)

Colorectal Cancer

- WWTR1 (3q25.1)
- CHEK1 (11q24.2)

Cervical Cancer

- MYB (6q22-q23)
- MAML2 (11q)

Ewing Sarcoma

- EWSR1 (22q12)

Fibrosarcoma

- COL1A1/PDGFB t(17;22)(q21.3;q13.1)

GIST

- KRAS (12p12.1)
- BRAF (7q34)

Glioma

- 1p/19q
- PDGFB (22q13)

Liver Cancer

- NCF1 (7q11.23)
- YWHAE (17p13)

Melanoma

- RREB1 (6p24)
- MAGI2 (7q21)

Myxoid Liposarcoma

- DDIT3 (12q13)

Neuroblastoma

- MYC8q24
- NTRK3 (15q25)

Prostate Cancer

- HPC1 (1q24-25)
- CENPF (1q41)
- ETV5 (3q27)
- HGF (17q21.1)
- ETV6-RUNX1 (12p13/)(21q22)
- ETV1 (7p21)
- MSR1 (8p22)
- FOXM1/CENPF(12p13.3/1q41)
- ELAC2 (17p12)
- TMPRSS2 (21q22.3)

Renal Cell Carcinoma

- mTOR (1p36)
- HIF1A (14q23)
- TFEB (6p21)
- FLCN (17p11)
- c-MET (7q31)

Round Cell Sarcoma

- WT1/EWSR1 (11p13/22q12.2)
- CIC (19q13.2)

Smooth Muscle Tumors

- HMGA2 (12q14)

Stomach Cancer

- JAK2 (9p24)
- ZNF217 (20q13)

Synovial Sarcoma

- SS18 (18q11)

Thyroid Cancer

- PAX8/PPARG (2q13/3p25)
- KIT (4q12)

Uterine Cancer

- XIST (Xq13.2)
- YWHAE (17p13)

Vascular Tumors

- CAMTA1/WWTR1 t(1;3)(p36.3;q25)

Wilms Tumor

- WT1 (11p13)

Hematopathology**Multiple Myeloma (MM)**

- CDKN2C/CKS1B (1p/1q)
- CEP 7, CEP 9, CEP 11, CEP 17
- TP53 (17p13)
- BRD4 (19p13.12)

IGH reflex

- FGFR3/IGH t(4;14)
- CCND1/IGH t(11;14)
- IGH/MAF t(14;16)

Acute Lymphoblastic Leukemia (ALL)**Adult**

- MYB/CEP 6 (6q23 del)
- ABL1 (9q34.1)
- PAX5 (9p13.2)
- CDKN2A/CEP 9 (9p21.3 del)
- MLL (11q23)
- EPOR t(14;19)(q32;p13.1)
- 21q (21q22.13-q22.2)

Pediatric

- CEP 4, CEP 10, CEP 17
- ABL1 (9q34.1)
- CDKN2A/CEP9
- MLL (11q23)
- ETV6/RUNX1

Acute Lymphocytic Leukemia

- BCL2 (18q21.3)

Acute Myelogenous Leukemia (AML)

- MECOM (3q26.2)
- DEK/NUP214
t(6;9)(p22;q34)
- BCR/ABL with ASS1
t(9;22)
- RUNX1T1/RUNX1
t(8;21)
- CBFβ inv(16),
t(16;16)
- PML/RARA t(15;17)

Acute Myelomonocytic Leukemia

- MECOM (3q26.2)
- Del20q/20p

Acute Myeloid Leukemia

- MECOM (3q26.2)
- NCOA2 (8q13)

Acute Promyelocytic Leukemia

- PML/RARA t(15;17)
- RARA (17q21)

Burkitt Lymphoma

- IGH/MYC/CEP 8 t(8;14)
- MYC (8q24)

Chronic Lymphocytic Leukemia (CLL)

- ATM (11q22.3 del)
- CEP 12 (trisomy 12)
- D13S319 (13q del)

IGH reflex

- IGH/BCL2 t(14;18)
- CCND1/IGH t(11;14)

Chronic Myelogenous Leukemia (CML)

- BCR/ABL1 t(9;22)
- BCR/ABL with ASS1 t(9;22)

Follicular Lymphoma (FL)

- IGH/BCL2 t(14;18)

Large B-Cell Lymphoma (LBCL)

- BCL6 (3q27)

MALT Lymphoma

- IGH (14q32.33)
- MALT1 (18q21)

Mantle Cell Lymphoma (MCL)

- BIRC3 (11q22)

Myelodysplastic Syndrome (MDS)

- -5/5q- (5q31 del)
- -7/7q- (7q31 del)
- 20q- (20q12 del)
- CEP 8 (trisomy 8)
- CEP 9 (trisomy 9)

Myeloid Neoplasms with Eosinophilia

- PDGFRA/CHIC2/FIP1L1 (4q12)
- PDGFRB (5q33)

• Myeloproliferative Neoplasms (MPN)

- -5/5q- (5q31 del)
- -7/7q- (7q31 del)
- 20q- (20q12 del)
- CEP 8 (trisomy 8)
- CEP 9 (trisomy 9)
- RB1 (13q14 del)

Non – Hodgkin Lymphoma

- 11q23.3 – 11q24

NUT Midline Carcinoma

- NUT/BRD4 (15q14/19p13.1)

T-cell Leukemia/Lymphoma

- Isochromosome 7q
- TRA (14q11.2)

Lymphoma Probes

- MALTA1 (1p/1q)
- DUSP22 t(6;7)
(p25.3;q32.3)
- BCL6 (14q32)
- MYC/IGH t(8;14)
- IGH/BCL2 t(14;18)

Transplant

- XX/XY for sex mismatched transplants