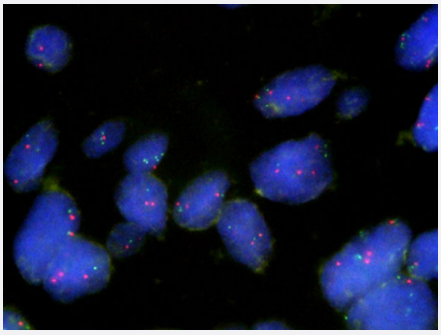
MLL/CEN11p FISH Probe

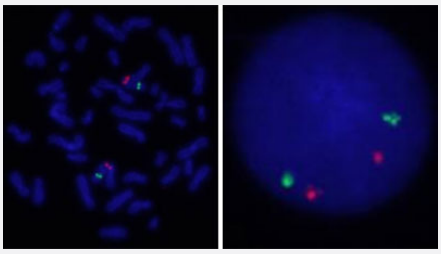
Catalog # FG0016 Size 200 uL, 100 uL

Applications



Fluorescent *In Situ* Hybridization (Formalin/PFA-fixed paraffin-embedded sections)

Human lung, adenosquamous cell carcinoma (FFPE) stained with MLL/CEN11p FISH Probe. Human lung, adenosquamous cell carcinoma showed no MLL gene amplification.



Hybridization position of the probes on the chromosome.

Hybridization position of the probes on the chromosome.

Specification

Product Description	Labeled FISH probes for identification of gene amplification using Fluorescent In Situ Hybridization T echnique. (Technology).

Probe 1	**Name:** MLL **Size:** Approximately 380kb **Fluorophore:** Texas Red **Location:** 11q23.3
Probe 2	**Name:** CEN11p **Size:** Approximately 630kb **Fluorophore:** FITC **Location:** 11p11.12
Probe Gap	The gap between two probes is approximately 70,500 kb.
Origin	Human
Source	Genomic DNA
Reactivity	Human
Form	Liquid
Notice	We **strongly recommend** the customer to use FFPE FISH PreTreatment Kit 1 (Catalog #: KA2375 or KA2691) for the pretreatment of Formalin-Fixed Paraffin-Embedded (FFPE) tissue sections.
Regulation Status	For research use only (RUO)
Quality Control Testing	Representative images of normal human cell (lymphocyte) stain with the dual color FISH probe. The l eft image is chromosomes at metaphase, and the right image is an interphase nucleus.
Supplied Product	DAPI Counterstain (1500 ng/mL) 125 uL for each 100 uL FISH Probe
Storage Instruction	Store at 4°C in the dark.
Note	Hybridization position of the probes on the chromosome. Hybridization position of the probes on the chromosome.

Applications

- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

- Fluorescent *In Situ* Hybridization (Formalin/PFA-fixed paraffin-embedded sections)

  Human lung, adenosquamous cell carcinoma (FFPE) stained with MLL/CEN11p FISH Probe. Human lung, adenosquamous cell carcinoma showed no MLL gene amplification.

  Protocol Download

Gene Info — MLL

Entrez GeneID	4297
Gene Name	MLL
Gene Alias	ALL-1, CXXC7, FLJ11783, HRX, HTRX1, KMT2A, MLL/GAS7, MLL1A, TET1-MLL, TRX1
Gene Description	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila)
Omim ID	159555
Gene Ontology	Hyperlink
Gene Summary	The MLL gene encodes a DNA-binding protein that methylates histone H3 (see MIM 601128) lys4 (H3K4) and positively regulates expression of target genes, including multiple HOX genes (see MIM 142980). MLL is a frequent target for recurrent translocations in acute leukemias that may be characterized as acute myeloid leukemia (AML; MIM 601626), acute lymphoblastic leukemia (ALL), or mixed lineage (biphenotypic) leukemia (MLL). Leukemias with translocations involving MLL possess unique clinical and biologic characteristics and are often associated with poor prognosis. MLL rearrangements are found in more than 70% of infant leukemias, whether the immunophenotype is more consistent with ALL or AML6, but are less frequent in leukemias from older children. MLL translocations are also found in approximately 10% of AMLs in adults, as well as in therapy-related leukemias, most often characterized as AML, that develop in patients previously treated with topoisomerase II inhibitors for other malignancies. More than 50 different MLL fusion partners have been identified. Leukemogenic MLL translocations encode MLL fusion proteins that have lost H3K4 methyltransferase activity. A key feature of MLL fusion proteins is their ability to efficiently transform hematopoietic cells into leukemia stem cells (Krivtsov and Armstrong, 2007 [PubMed 17957188]).[supplied by OMIM
Other Designations	CDK6/MLL fusion protein|MLL-AF4 der(11) fusion protein|MLL/GAS7 fusion protein|MLL/GMPS fusion protein|trithorax-like protein|zinc finger protein HRX

Disease

- Acute Disease
- Disease Progression
- Down Syndrome
- Head and Neck Neoplasms
- Leukemia
- Myelodysplastic Syndromes
- Neoplasm Recurrence

- Neoplasms