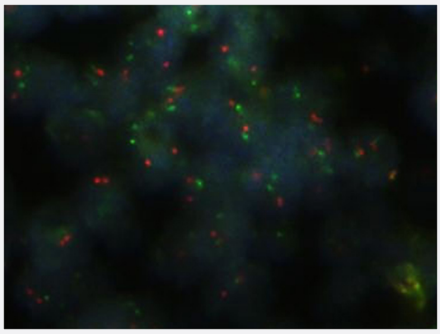
PML/RARA DY Translocation FISH Probe

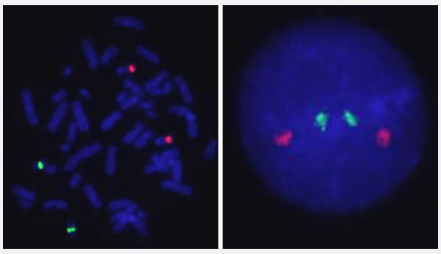
Catalog # FT0004 Size 200 uL, 100 uL

Applications



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

Human lymph node (FFPE) stained with PML/RARA DY Translocation FISH Probe. Human lymph node cancer showed no PML/RARA DY Translocation.



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 translocation using Fluorescent In Situ Hybridization T echnique. (Technology).

Probe 1	**Name:** RARA **Size:** Approximately 1200kb **Fluorophore:** FITC **Location:** 17q21.2
Probe 2	**Name:** PML **Size:** Approximately 540kb **Fluorophore:** Texas Red **Location:** 15q24.1
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 lymph node (FFPE) stained with PML/RARA DY Translocation FISH Probe. Human lymph node cancer showed no PML/RARA DY Translocation.

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Gene Info — PML

Entrez GeneID	5371

Gene Name	PML
Gene Alias	MYL, PP8675, RNF71, TRIM19
Gene Description	promyelocytic leukemia
Omim ID	102578
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the tripartite motif (TRIM) family. The TRIM motif includes three zinc-binding domains, a RING, a B-box type 1 and a B-box type 2, and a coiled-coil region. This phosphoprotein localizes to nuclear bodies where it functions as a transcription factor and tumor suppressor. Its expression is cell-cycle related and it regulates the p53 response to onc ogenic signals. The gene is often involved in the translocation with the retinoic acid receptor alpha gene associated with acute promyelocytic leukemia (APL). Extensive alternative splicing of this g ene results in several variations of the protein's central and C-terminal regions; all variants encode the same N-terminus. Alternatively spliced transcript variants encoding different isoforms have be en identified. [provided by RefSeq
Other Designations	promyelocytic leukemia protein|promyelocytic leukemia, inducer of|tripartite motif protein TRIM19

Gene Info — RARA

Entrez GeneID	5914
Gene Name	RARA
Gene Alias	NR1B1, RAR
Gene Description	retinoic acid receptor, alpha
Omim ID	180240
Gene Ontology	Hyperlink
Gene Summary	Retinoid signaling is transduced by 2 families of nuclear receptors, retinoic acid receptor (RAR) a nd retinoid X receptor (RXR; see MIM 180245), which form RXR/RAR heterodimers. In the absen ce of ligand, DNA-bound RXR/RARA represses transcription by recruiting the corepressors NCO R1 (MIM 600849), SMRT (NCOR2; MIM 600848), and histone deacetylase (see MIM 601241). W hen ligand binds to the complex, it induces a conformational change allowing the recruitment of co activators, histone acetyltransferases (see MIM 603053), and the basic transcription machinery. T ranslocations that always involve rearrangement of the RARA gene are a cardinal feature of acute promyelocytic leukemia (APL; MIM 612376). The most frequent translocation is t(15,17)(q21;q22) , which fuses the RARA gene with the PML gene (MIM 102578) (Vitoux et al., 2007 [PubMed 174 68032]).[supplied by OMIM
Other Designations	OTTHUMP00000164454|OTTHUMP00000164456|Retinoic acid receptor, alpha polypeptide|nucl eophosmin-retinoic acid receptor alpha fusion protein NPM-RAR long form

Pathway

- Acute myeloid leukemia
- Acute myeloid leukemia
- Pathways in cancer
- Pathways in cancer
- Ubiquitin mediated proteolysis

Disease

- Alcoholism
- Alzheimer disease
- Attention Deficit Disorder with Hyperactivity
- Autistic Disorder
- Bipolar Disorder
- Cardiovascular Diseases
- Cerebral Hemorrhage
- Cleft Lip
- Cleft Palate
- Diabetes Complications
- Diabetes Mellitus
- Disease Models
- Drug Toxicity
- Edema
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Hypercholesterolemia

- Hypertension
- Intracranial Hemorrhages
- Leukemia
- Liver Cirrhosis
- Mental Disorders
- Metabolic Syndrome X
- Myopia
- Neoplasms
- Osteoporosis
- Schizophrenia
- Stroke
- Subarachnoid Hemorrhage
- Tobacco Use Disorder