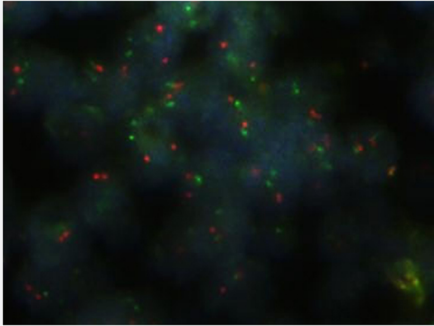


# PML/RARA DY Translocation FISH Probe

Catalog # FT0004

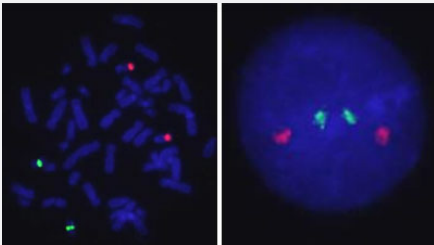
Size 200 uL, 100 uL

## 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 Technique. ([Technology](#)).

<b>Probe 1</b>	<p><b>Name:</b> RARA</p> <p><b>Size:</b> Approximately 1200kb</p> <p><b>Fluorophore:</b> FITC</p> <p><b>Location:</b> 17q21.2</p>
<b>Probe 2</b>	<p><b>Name:</b> PML</p> <p><b>Size:</b> Approximately 540kb</p> <p><b>Fluorophore:</b> Texas Red</p> <p><b>Location:</b> 15q24.1</p>
<b>Reactivity</b>	Human
<b>Form</b>	Liquid
<b>Notice</b>	We <b>strongly recommend</b> the customer to use FFPE FISH PreTreatment Kit 1 (Catalog #: <a href="#">KA2375</a> or <a href="#">KA2691</a> ) for the pretreatment of Formalin-Fixed Paraffin-Embedded (FFPE) tissue sections.
<b>Regulation Status</b>	For research use only (RUO)
<b>Quality Control Testing</b>	Representative images of normal human cell (lymphocyte) stain with the dual color FISH probe. The left image is chromosomes at metaphase, and the right image is an interphase nucleus.
<b>Supplied Product</b>	DAPI Counterstain (1500 ng/mL ) 125 uL for each 100 uL FISH Probe
<b>Storage Instruction</b>	Store at 4°C in the dark.
<b>Note</b>	<p>Hybridization position of the probes on the chromosome.</p> <p>Hybridization position of the probes on the chromosome.</p>

## 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.

[Protocol Download](#)

## Gene Info — PML

Entrez GeneID

[5371](#)

<b>Gene Name</b>	PML
<b>Gene Alias</b>	MYL, PP8675, RNF71, TRIM19
<b>Gene Description</b>	promyelocytic leukemia
<b>Omim ID</b>	<a href="#">102578</a>
<b>Gene Ontology</b>	<a href="#">Hyperlink</a>
<b>Gene Summary</b>	<p>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 oncogenic 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 gene 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 been identified. [provided by RefSeq]</p>
<b>Other Designations</b>	promyelocytic leukemia protein promyelocytic leukemia, inducer of tripartite motif protein TRIM19

## Gene Info — RARA

<b>Entrez GeneID</b>	<a href="#">5914</a>
<b>Gene Name</b>	RARA
<b>Gene Alias</b>	NR1B1, RAR
<b>Gene Description</b>	retinoic acid receptor, alpha
<b>Omim ID</b>	<a href="#">180240</a>
<b>Gene Ontology</b>	<a href="#">Hyperlink</a>
<b>Gene Summary</b>	<p>Retinoid signaling is transduced by 2 families of nuclear receptors, retinoic acid receptor (RAR) and retinoid X receptor (RXR; see MIM 180245), which form RXR/RAR heterodimers. In the absence 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). When ligand binds to the complex, it induces a conformational change allowing the recruitment of coactivators, histone acetyltransferases (see MIM 603053), and the basic transcription machinery. Translocations 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 17468032]).[supplied by OMIM]</p>
<b>Other Designations</b>	OTTHUMP00000164454 OTTHUMP00000164456 Retinoic acid receptor, alpha polypeptide nucleophosmin-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](#)