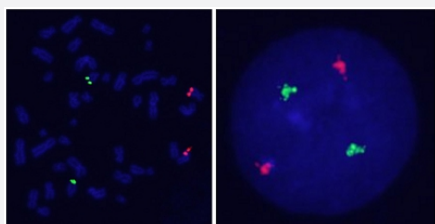


IGH/MYC DY Translocation FISH Probe

Catalog # FT0026 Size 200 uL, 100 uL

Applications



Specification

Product Description	Labeled FISH probes for identification of gene translocation using Fluorescent In Situ Hybridization Technique. (Technology).
Probe 1	Name: IGH Size: Approximately 1550kb Fluorophore: FITC Location: 14q32
Probe 2	Name: MYC Size: Approximately 670kb Fluorophore: Texas Red Location: 8q24
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 left 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

Probe Position**Storage Instruction**

Store at 4°C in the dark.

Applications

- Fluorescent In Situ Hybridization (Cell)

[Protocol Download](#)

Gene Info — IGH

Entrez GeneID

[3492](#)

Gene Name

IGH

Gene Alias

IGH, IGH.1@, IGHDY1, MGC72071, MGC88774

Gene Description

immunoglobulin heavy locus

Gene Ontology

[Hyperlink](#)

Gene Summary

Immunoglobulins recognize foreign antigens and initiate immune responses such as phagocytosis and the complement system. Each immunoglobulin molecule consists of two identical heavy chains and two identical light chains. This region represents the germline organization of the heavy chain locus. The locus includes V (variable), D (diversity), J (joining), and C (constant) segments. During B cell development, a recombination event at the DNA level joins a single D segment with a J segment; this partially rearranged D-J gene is then joined to a V segment. The rearranged V-D-J is then transcribed with theIGHM constant region; this transcript encodes a mu heavy chain. Later in development B cells generate V-D-J-Cmu-Cdelta pre-messenger RNA, which is alternatively spliced to encode either a mu or a delta heavy chain. Mature B cells in the lymph nodes undergo switch recombination, so that the V-D-J gene is brought in proximity to one of theIGHG, IGHA, orIGHE genes and each cell expresses either the gamma, alpha, or epsilon heavy chain. Recombination of many different V segments with several J segments provides a wide range of antigen recognition. Additional diversity is attained by junctional diversity, resulting from the random addition of nucleotides by terminal deoxynucleotidyltransferase, and by somatic hypermutation, which occurs during B cell maturation in the spleen and lymph nodes. Several V, D, J, and C segments are known to be incapable of encoding a protein and are considered pseudogenes. [provided by RefSeq]

Other Designations

-

Gene Info — MYC

Entrez GeneID [4609](#)

Gene Name MYC

Gene Alias bHLHe39, c-Myc

Gene Description v-myc myelocytomatosis viral oncogene homolog (avian)

Omim ID [113970 190080](#)

Gene Ontology [Hyperlink](#)

Gene Summary

The protein encoded by this gene is a multifunctional, nuclear phosphoprotein that plays a role in cell cycle progression, apoptosis and cellular transformation. It functions as a transcription factor that regulates transcription of specific target genes. Mutations, overexpression, rearrangement and translocation of this gene have been associated with a variety of hematopoietic tumors, leukemias and lymphomas, including Burkitt lymphoma. There is evidence to show that alternative translation initiations from an upstream, in-frame non-AUG (CUG) and a downstream AUG start site result in the production of two isoforms with distinct N-termini. The synthesis of non-AUG initiated protein is suppressed in Burkitt's lymphomas, suggesting its importance in the normal function of this gene. [provided by RefSeq]

Other Designations

avian myelocytomatosis viral oncogene homolog|myc proto-oncogene protein|v-myc avian myelocytomatosis viral oncogene homolog

Pathway

- [Acute myeloid leukemia](#)
- [Bladder cancer](#)
- [Cell cycle](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Endometrial cancer](#)
- [ErbB signaling pathway](#)
- [Jak-STAT signaling pathway](#)
- [MAPK signaling pathway](#)
- [Pathways in cancer](#)

- [Small cell lung cancer](#)
- [TGF-beta signaling pathway](#)
- [Thyroid cancer](#)
- [Wnt signaling pathway](#)

Disease

- [Alzheimer disease](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Chromosome Aberrations](#)
- [Chromosome Aberrations](#)
- [Colorectal Neoplasms](#)
- [Diabetes Complications](#)
- [Disease Progression](#)
- [Genetic Predisposition to Disease](#)
- [Helicobacter Infections](#)
- [Hematologic Diseases](#)
- [Hodgkin Disease](#)
- [Kidney Failure](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)
- [Metabolic Syndrome X](#)
- [Mouth Neoplasms](#)

- [Neoplasm Metastasis](#)
- [Neoplasms](#)
- [Occupational Diseases](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Stomach Neoplasms](#)
- [Thyroid Diseases](#)
- [Thyroid Neoplasms](#)
- [Translocation](#)
- [Urinary Bladder Neoplasms](#)
- [Waldenstrom Macroglobulinemia](#)
- [Werner syndrome](#)