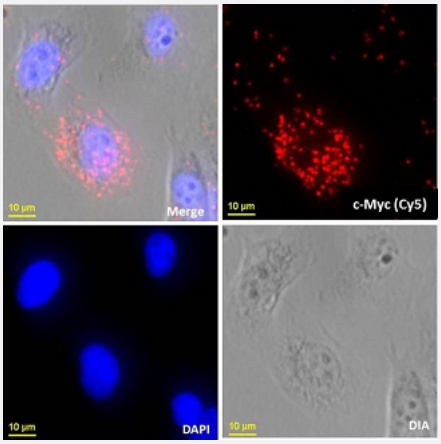
mutaFISH™ c-Mycwt RNA Probes

Catalog # FP0015 Size 1 Probe Set

Applications



mutation specific, Fluorescence *In Situ* Hybridization (Cells)

mutaFISH™ staining was performed *in situ* in human H1975 cells. c-Myc was detected via red signal (Cy5).

Specification

Product Description	mutaFISH™ c-Mycwt RNA Probes is designed to detect human c-Myc gene on single strand RNA in cells using padlock probe and *in situ* rolling-circle amplification technology.
Reactivity	Human
Supplied Product	Content: 1. RT c-Myc Primer 2. mutaFISH™ c-Mycwt RNA Probe 3. Detection Probe-Texas Red X
Technology	mutaFISH™ (mutation-specific Fluorescence *In Situ* Hybridization)
Comparison	FISH Probes vs mutaFISH™ Probes
Fluorophore	Texas Red X (Excitation Peak (nm): 595; Emission Peak 613)
Probe Position	

Regulatory Status	For research use only (RUO)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	We recommend mutaFISH™ RNA Accessory Kit (Catalog #: KA4915) which provides necessary re agents and enzymes for *in situ* reverse transcription, RNA digestion, mutaFISH™ hybridization, ligati on and amplication prior to mutaFISH™.
Video	

Applications

- mutation specific, Fluorescence *In Situ* Hybridization (Cells)

  mutaFISH™ staining was performed *in situ* in human H1975 cells. c-Myc was detected via red signal (Cy5).

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
- 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