### Specification

<table>
<thead>
<tr>
<th>Product Description:</th>
<th>Labeled FISH probes for identification of gene amplification using Fluorescent In Situ Hybridization Technique.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Control Testing:</td>
<td>Representative images of normal human cell stain with the dual color FISH probe. The left image is two copies of MYC gene and two copies of chromosome 8 in HL60S cell line, and the right image is two copies of chromosome 8, higher copy number of MYC gene in NCI417 cell line.</td>
</tr>
</tbody>
</table>

### Storage Instruction:
Store at -20°C in the dark.

### Note:
Hybridization position of the probes on the chromosome.

### Application Image
Fluorescent In Situ Hybridization

### Probe 1:
- **Size:** Approximately 162kb
- **Fluorophore:** Orange
- **Location:** 8q24

### Probe 2:
- **Size:** Approximately 1.2kb
- **Fluorophore:** Green
- **Location:** 8p11.1-11.1

### Origin:
Human

### Source:
Genomic DNA

### Regulation:
For research use only (RUO)

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**Catalog # : FG0117**

**Size : [ 200 uL ]**
## Gene Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrez GeneID:</td>
<td>4609</td>
</tr>
<tr>
<td>Gene Name:</td>
<td>MYC</td>
</tr>
<tr>
<td>Gene Alias:</td>
<td>bHLH39,c-Myc</td>
</tr>
<tr>
<td>Gene Description:</td>
<td>v-myc myelocytomatosis viral oncogene homolog (avian)</td>
</tr>
<tr>
<td>Omim ID:</td>
<td>113970, 190080</td>
</tr>
<tr>
<td>Gene Ontology:</td>
<td>[Hyperlink]</td>
</tr>
</tbody>
</table>

### 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

## Gene 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

## Related Disease

- Alzheimer Disease
- Alzheimer disease
- Breast cancer
- Breast Neoplasms
- Carcinoma, Non-Small-Cell Lung
- Carcinoma, Squamous Cell
- Cardiovascular Diseases
- Chromosome Aberrations
- Colorectal Neoplasms
- Diabetes Complications
- Disease Progression
- Genetic Predisposition to Disease
- Helicobacter Infections
- Hematologic Diseases
- Hodgkin Disease
- Kidney Failure, Chronic
- Lung Neoplasms
- Lymphoma, B-Cell
- Lymphoma, B-Cell, Marginal Zone

... see more