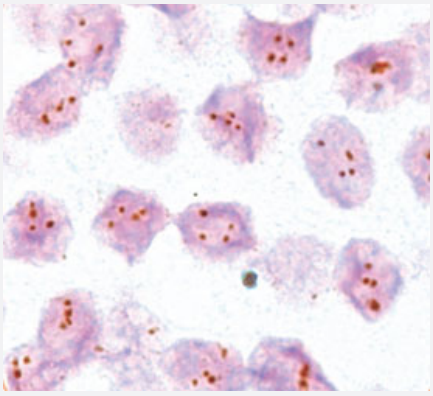
MYC CISH Probe

Catalog # CG0021 Size 400 uL

Applications



Chromogenic *In Situ* Hybridization (FFPE Tissue)

Tetrasomy of chromosome 8 as indicated by four MYC signals per nucleus.

Specification

Product Description	MYC CISH Probe is designed for the qualitative detection of human MYC gene in formalin-fixed, par affin-embedded specimens by chromogenic *in situ* hybridization (CISH).
Reactivity	Human
Recommend Usage	The product is ready-to-use. No reconstitution, mixing, or dilution is required. Bring probe to room te mperature (18-25°C) and mix briefly before use.
Supplied Products	Reagent Provided: This Probe is available in one size and is composed of: Digoxigenin-labeled polynucleotides targeting sequences mapping in 8q24.21* (chr8:128,596,776-1 28,887,929) harboring the MYC gene Formamide based hybridization buffer *according to Human Genome Assembly GRCh37/hg19
Probe Position	
Regulatory Status	For research use only (RUO)

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Storage Instruction	Store at 2-8°C in an upright position. Return to storage conditions immediately after use.
Note	The probe is intended to be used in combination with the CISH Implementation Kit 1 (Catalog #: KA5365), which provides necessary reagents for specimen pretreatment and post-hybridization processing. Hybridization signals of digoxigenin-labeled polynucleotides appear as brown- to dark brown colored distinct dots (MYC gene region). Normal situation: In interphases of normal cells or cells without an amplification involving the MYC gene locus, two distinct dot-shaped brown signals per nucleus appear. Aberrant situation: In a cell with amplification of the MYC gene locus or polysomy of chromosome 8, multiple copies of the brown signal or brown signal clusters will be observed. Other signal distribution may be observed in some abnormal samples which might result in a different signal pattern than described above, indicating variant rearrangements. Unexpected signal patterns should be further investigated. The digoxigenin-labeled probe and the formamide-based hybridization buffer are pre-mixed and provided in a single ready-to-use vial. Only one tube is included in the package.
Interpretation of Result	
Self-Attestation	Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening

Applications

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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

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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

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- 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

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- Pulmonary Disease
- Stomach Neoplasms
- Thyroid Diseases
- Thyroid Neoplasms
- Translocation
- Urinary Bladder Neoplasms
- Waldenstrom Macroglobulinemia
- Werner syndrome

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