

MYC (8q24) Orange + Copy Control 8 Green

FISH Probe
902-7027-121517

BIOCARE
M E D I C A L

Catalog Number: PFR7027A

Description: MYC (8q24) Orange+ Copy Control 8 Green FISH Probe

Dilution: Ready-to-use

Volume: 100 µL

Intended Use:

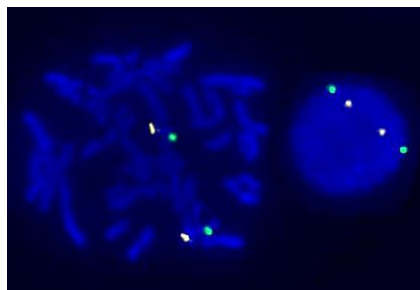
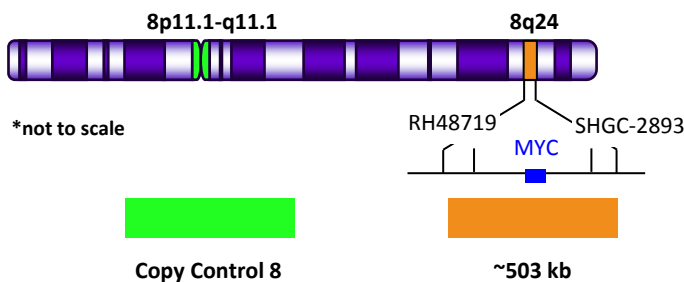
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

The MYC gene belongs to a family of transcription factors that under normal conditions it controls cell cycle progression¹. However, in multiple types of cancer, MYC is considered a Proto-oncogene¹. MYC gene deregulation is identified in multiple malignancies such as Burkitt's lymphoma, diffuse large B-cell lymphoma, and B-cell lymphoma². MYC gene amplifications, rearrangements, and/or point mutations are considered the underlying mechanisms that induce MYC gene deregulation¹. Specifically, a MYC gene rearrangement is considered a prognostic marker in several cancer subtypes. MYC gene rearrangements can be identified using conventional cytogenetic techniques such as fluorescence in situ hybridization (FISH).

Principle of Procedure:

The dual color MYC (8q24) Orange + Copy Control 8 Green FISH probe is designed to detect copy number alterations of MYC and chromosome 8. The orange probe covers ~503kb of the MYC (8q24) region and the green probe binds to α -satellite DNA sequences located at the centromere region of chromosome 8. A normal nucleus will show two green and two orange signals.



(A) MYC (8q24) Orange + Copy Control 8 Green probe hybridized on a normal cell will show two orange and two green signals. Interphase and metaphase cellular state are shown.

Species Reactivity: Human

Known Application:

Fluorescence In-situ Hybridization (FISH) on formalin-fixed paraffin-embedded (FFPE) tissues.

Supplied As: Probe in hybridization buffer.

Storage and Stability:

Store probe at -20°C and away from light. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date.

Technical Note:

Biocare Medical dual color FISH probes are optimized to provide the best signal performance using optical filters that can accommodate the excitation/emission wavelengths specified below. Using filters outside these spectral specifications may produce sub-optimal results.

Fluorophore	Excitation (nm)	Emission (nm)
GREEN	498	521
ORANGE	546	575

Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

Precautions:

1. This product contains formamide, which may be toxic. Formamide may cause serious eye damage or reproductive toxicity. It may also cause irritation by inhalation or skin contact. Avoid any direct contact exposure to reagent. Take appropriate protective measures (use disposable gloves, protective glasses, and lab garments). The SDS is available upon request and is located at <http://biocare.net>.
2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water³.

Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

References:

1. Aquino, Gabriella, Laura Marra, Monica Cantile, Annarosaria De Chiara, Giuseppina Liguori, Maria Curcio, Rocco Sabatino, Giuseppe Pannone, Antonio Pinto, Gerardo Botti, and Renato Franco. "MYC Chromosomal Aberration in Differential Diagnosis between Burkitt and Other Aggressive Lymphomas." *Infectious Agents and Cancer* (2013): 1-9. Print.

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2. Munoz-Marmol, Ana M, Carolina Sanz, Gustavo Tapia, Ruth Marginet, Aurelio Ariza, and Jose L Mate. "MYC Status Determination in Aggressive B-cell Lymphoma the Impact of FISH Probe Selection." *Histopathology* (2013): 418-24. Print.
3. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.