

MYC (8q24) Break Apart Orange/Green

FISH Probe
902-7026-102517

BIOCARE
M E D I C A L

Catalog Number: PFR7026A

Description: MYC (8q24) Break Apart FISH Probe
Orange/Green

Dilution: Ready-to-use

Volume: 100 µL

Intended Use:

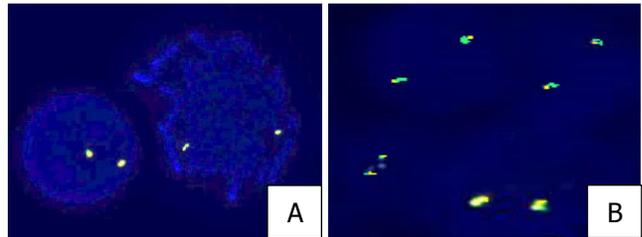
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

The MYC (8q24) Break Apart FISH probe is designed to detect chromosomal rearrangements involving the MYC gene on Chromosome 8q24. The MYC gene belongs to a family of transcription factors and under normal conditions it controls cell cycle progression¹. However in multiple cancer indications, 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 underlining 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 MYC (8q24) Break Apart FISH probe is designed to detect chromosomal rearrangements involving the MYC gene. The ~325kb probe labeled in orange is centromeric to the MYC gene and the ~730kb probe labeled green is located telomeric to the MYC gene. When the probe is hybridized to a normal cell it will show two orange/green (yellow) fusion signal patterns. A cell containing a rearrangement of the MYC gene (e.g. in translocations with other partners) may show one orange, one green (separated) and one orange/green (yellow) signal.



(A) MYC (8q24) Break Apart FISH probe hybridized on normal blood sample. Interphase and metaphase cellular states are shown. (B) MYC (8q24) Break Apart FISH hybridized on cervical FFPE tissue.

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 Break Apart 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 | 522 |
| ORANGE | 537 | 556 |

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.

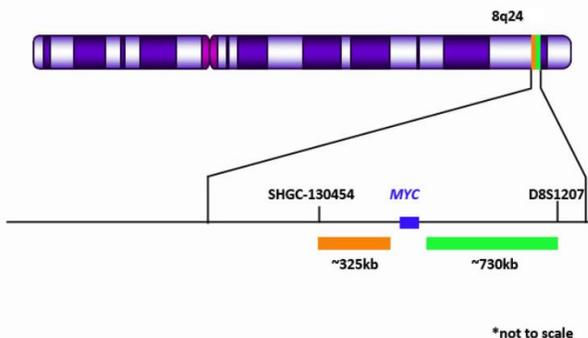
Precautions:

1. This product contains formamide and fluorescent dyes that may be hazardous to your health. 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:



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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.
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.
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.



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