

IGH (14q32) Green/ MAF (16q23) Orange

FISH Probe
902-7023-102517

BIOCARE
M E D I C A L

Catalog Number: PFR7023A
Description: IGH (14q32) Green/ MAF (16q23) Orange FISH Probe
Dilution: Ready-to-use
Volume: 100 µL

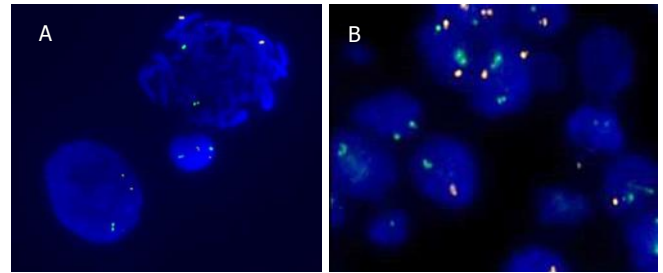
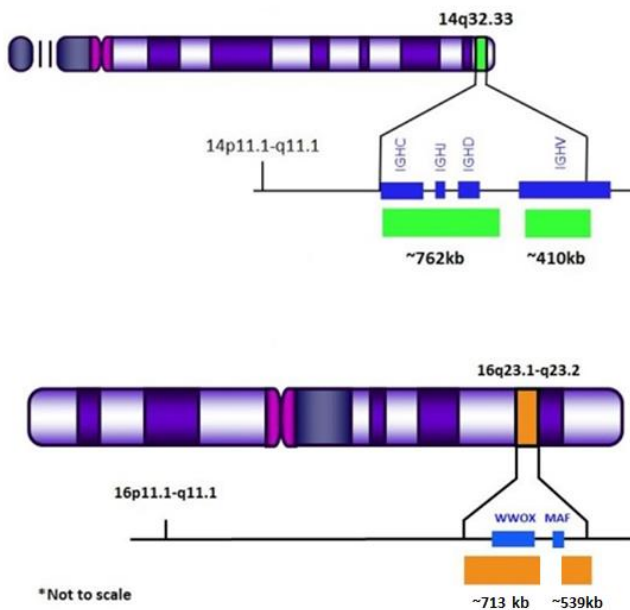
Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

Gene translocations involving the IGH gene at 14q32 and the MAF gene at 16q23 are seen in multiple myeloma. The identification of such events can assist in the diagnosis and classification of this disease. The t(14;16)(q32;q23) has been reported to be detectable in 2–10% of patients with plasma cell myeloma and in about 25% of myeloma cell lines¹. The presence of this translocation in MM is associated with more aggressive disease along with an unfavorable prognosis and outcome^{2,3}.

Principle of Procedure

The IGH (14q32) Green Probe is designed to provide coverage of the 14q32.33 (~1.17 Mb) region of chromosome 14. The MAF (16q23) Orange Probe is designed to provide coverage of the 16q23.1-q23.2 (~1.25 Mb) region of chromosome 16. A normal cell would show two green and two orange signals.



A) IGH (14q32) Green/ MAF (16q23) Orange FISH probe hybridized on normal blood sample. Interphase and metaphase cellular states are shown. (B) IGH (14q32) Green/ MAF (16q23) Orange FISH probe hybridized on 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 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)
AQUA	432	472
GREEN	498	521
ORANGE	546	575
RED	593	618

Precautions:

1. This product is Research Use Only.
2. It is the responsibility of the user to validate any test for its specific 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).
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

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with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water⁴.

3. The SDS is available upon request and is located at <http://biocare.net>.

Technical Support:

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

References:

1. Fonseca et al. (2004). Genetics and cytogenetics of multiple myeloma: A workshop report. *Cancer Res.* 64:1546.
2. Evidence for Cytogenetic and Fluorescence In Situ Hybridization Risk Stratification of Newly Diagnosed Multiple Myeloma in the Era of Novel Therapies. Prashant Kapoor, MD, Rafael Fonseca, MD, S. Vincent Rajkumar, MD, Shirshendu Sinha, MBBS, Morie A. Gertz, MD, et al. *Mayo Clin Proc.* 2010 Jun; 85(6): 532–537.
3. A novel prognostic model in myeloma based on co-segregating adverse FISH lesions and the ISS: analysis of patients treated in the MRC Myeloma IX trial. Boyd KD1, Ross FM, Chiecchio L, Dagrada GP, Konn ZJ, Tapper WJ, Walker BA, et al. *Leukemia.* 2012 Feb;26(2):349-55
4. 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.