

TP53 (17p13) Red + Copy Control 17 Aqua

FISH Probe
902-7320-102517

BIOCARE
M E D I C A L

Catalog Number: PFR7320A
Description: TP53 (17p13) Red + Copy Control 17 Aqua FISH Probe
Dilution: Ready-to-use
Volume: 100 µL

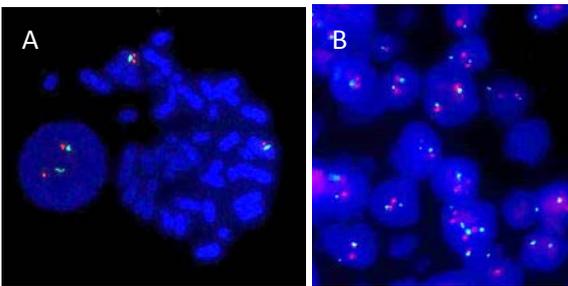
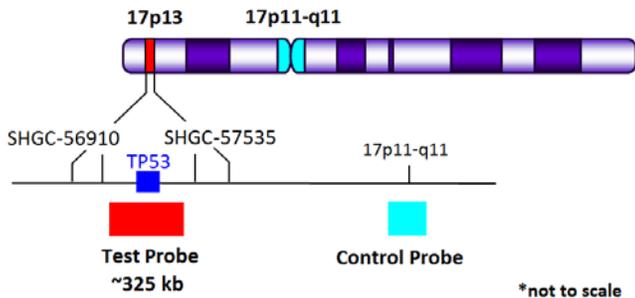
Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

TP53 is the gene which encodes for the p53 tumor suppressor protein. TP53 is activated in many forms of cellular stress including carcinogenesis and exerts multiple anti-proliferative functions¹. TP53 mutations are one of the most common findings in many human cancers and has been proposed as an effective measure of prognosis². Typically the presence of a specific mutation has been correlated with a shorter survival or poor response to treatment. Multiple breast cancer studies have all shown that there was a clear association between mutation and bad prognosis³.

Principle of Procedure

The TP53 (17p13) Red Probe is designed to provide coverage of the 17p13 (~325 kb) region of chromosome 17. The Copy Control 17 Aqua Probe is designed to hybridize to human α-satellite DNA sequences located at the centromere region of chromosome 17. A normal cell would show two red and two aqua signals.



A) TP53 (17p13) Red + Copy Control 17 Aqua FISH probe hybridized on normal blood sample. Interphase and metaphase cellular states are shown. (B) TP53 (17p13) Red + Copy Control 17 Aqua 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.
3. 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).
4. 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 water⁴.
5. 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. Vogelstein B, Lane D, Levine AJ. (2000). Surfing the p53 network. Nature 408: 307-310.
2. Hainaut P, Hollstein M. (2000). p53 and human cancer: the first ten thousand mutations. Adv Cancer Res 77: 81-137.

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Rev. 062117

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3. Olivier M, Langerod A, Carrieri P, Bergh J, Klaar S, Eyfjord J et al. (2006). The clinical value of somatic TP53 gene mutations in 1,794 patients with breast cancer. Clin Cancer Res 12: 1157–1167.
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.



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