

TP53 (17p13) Orange + Copy Control 17 Green

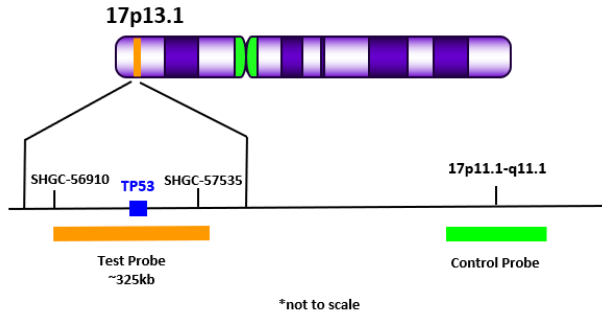
FISH Probe
902-OPPR7339-020322

Catalog Number: OPPR7339 T30
Description: Prediluted FISH Probe

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

Summary & Explanation:
The p53 tumor suppressor protein is encoded by the TP53 gene located on chromosome 17p13. Under normal conditions the TP53 gene functions as a safeguard in maintaining cellular homeostasis (1). Furthermore, the TP53 gene regulates suppressive mechanisms that mediate cell cycle arrest, senescence and apoptosis (1). Chromosomal abnormalities involving the TP53 gene are associated with several hematological cancers (1). TP53 gene deletions have been commonly identified in both multiple myeloma (MM) and chronic lymphocytic leukemia (CLL) patients (1,2). Regarded as a prognostic marker, TP53 gene deletions are identified in approximately 10% of MM patients and in 5-10% of CLL patients (1,2). Conventional cytogenetic techniques such as FISH can be used to identify TP53 deletion with high accuracy.

Principle of Procedure:
The TP53 (17p13) Orange + Copy Control 17 Green FISH probe is designed to hybridize to ~325kb of the TP53(17p13) region and to the α-satellite centromeric region of chromosome 17. A normal cell would show two orange and two green signals.



Species Reactivity: Human
Known Application: Fluorescence In-situ Hybridization (FISH) on formalin-fixed paraffin-embedded (FFPE) tissues.
Supplied As: Probe in hybridization buffer
Reconstitution, Dilution and Mixing:
TP53 (17p13) Orange + Copy Control 17 Green FISH Probe is provided ready-to-use.
Bring the vial to room temperature 30 minutes prior to EACH use and MIX WELL by shaking vigorously by hand for 3 minutes in different orientations. If vial volume is 1mL or less, mix using a pipette for 20 aspirations.

Materials and Reagents Required but Not Provided:
Reagents and materials, such as detection kits and ancillary reagents are not provided. Refer to the ONCORE Pro FISH Kit (OPRR6064K) and the ONCORE Pro ISH Dewax Kit (OPRI6020K) datasheets. DAPI (120ng/mL) solution is also required for counterstaining. Call Technical Support for additional information on reagents and instrument accessories.

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.

Instructions for Use:
OPPR7339 is intended for use with the ONCORE Pro. Refer to the User Manual for specific instructions for use. Protocol parameters in the Protocol Editor should be programmed as follows:
Protocol Name: TP53+CC17 2CP
Protocol Template (Description): PathoFISH Template 1
Reagent Name, Time, Temp.: FISHzyme*, 35 min., 37°C

*FISHzyme (OPRR6066) is a part of ONCORE Pro FISH Kit (OPRR6064K).
Incubation time of FISHzyme may be modified based on the tissue type and tissue fixation.

Slides should be baked offline for 1 hour at 60°C prior to loading onto the instrument.

The ONCORE Pro Baking Slides Before Staining setting should be selected and set for 10 min at 60°C to improve tissue retention.

- Post ONCORE Pro FISH staining processing:
1. Gently rinse slides in TBS buffer, followed by a gentle rinse in DI water.
 2. Place the slide rack in a dark cabinet to air dry.
 3. Apply 1-2 drops of Fluoro Care Mounting Media (FP001) under a suitable size coverslip, e.g., 22x40 mm.

Technical Notes:
1. FISH runs should not be delayed as the probe will separate.
2. 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	490	515
ORANGE	546	575

TP53 (17p13) Orange + Copy Control 17 Green

FISH Probe
902-OPPR7339-020322

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 water (3).

**Health Hazard****Irritant****Corrosive (to skin)****Technical Support:**

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

References:

1. Teoh, P.J, and W.J. Chng. "P53 Abnormalities and Potential Therapeutic Targeting in Multiple Myeloma." *BioMed Research International* (2014): 1-9.
2. Shindiapina, Polina, Jennifer R. Brown, and Alexey V. Danilov. "A New Hope: Novel Therapeutic Approaches to Treatment of Chronic Lymphocytic Leukemia with Defects in TP53." *British Journal of Hematology* (2014): 149-61.
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.