

PTEN del-TECT™ Four Color

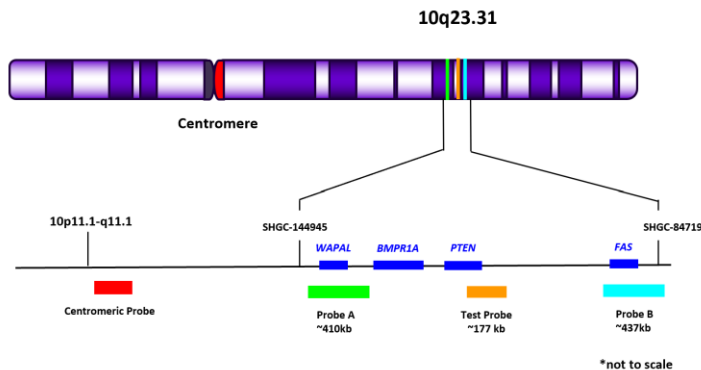
FISH Probe
902-OPPR7326-020322

Catalog Number: OPPR 7326 T30
Description: Prediluted FISH Probe

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

Summary & Explanation:
The PTEN (Phosphatase and Tensin) gene encodes a phosphatase which counteracts the PI3K/Akt signaling pathway. It is involved in the regulation of DNA repair, genomic instability, stem cell self-renewal, cellular senescence, and cell migration (1).

Principle of Procedure:
The PTEN del-TECT (4 Color) FISH probe greatly increases the reliability of deletion detection, significantly decreasing the number of false-positive events caused by cell truncation, an artifact of FFPE tissue processing (2). The PTEN Test probe is labeled in Orange and detects deletions of the PTEN gene. Probe A (WAPAL/BMPRI1A) is located centromeric to the test probe and is labeled in green. Probe B (FAS) is located telomeric to the test probe and is labeled in aqua. The combination of the three colored probes (green, orange and aqua) in close proximity assists not only in eliminating the possibility of truncation of this region, but also in determining the actual size of the deletion. The centromere 10 probe labeled in red is included to help determine if chromosome 10 monosomies or polysomies are present.



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:
PTEN del-TECT™ Four Color 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 (OPPR6064K) 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:
OPPR7326 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: PTEN 4CP
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 adjusted 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 Four 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)
AQUA	426	498
GREEN	490	515
ORANGE	546	575
RED	583	602

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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 (4).



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. Yoshimoto M, Cutz J-C, Nuin PAS, Joshua AM, Bayani J, Evans AJ, Zielenska M, Squire JA. Interphase FISH Analysis of PTEN in Histologic Sections Shows Genomic Deletions are Present in 68% of Primary Prostate Cancer and 23% of High-Grade Prostatic Intra-Epithelial Neoplasia. *Cancer Genetics and Cytogenetics* 169:128-37, 2006.
2. Yoshimoto M, Cunha IW, Coudry RA, Fonseca FP, Torres CH, Soares FA, Squire JA. FISH analysis of 107 prostate cancers shows that PTEN genomic deletion is associated with poor clinical outcome. *British Journal of Cancer* 97(5):678-85, 2007.
3. Yoshimoto M, Cunha IW, Coudry RA, Joshua A, FP Fonseca, Zielenska M, Soares FA, Squire JA. Absence of TMPRSS2:ERG fusions and PTEN losses identifies prostate cancer genomic grade with favorable outcome. *Modern Pathology* Epub ahead of print, 2008.
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.