**Catalog Number:** PFR7319A
**Description:** TERC (3q26.2)/ 5p15.2/ Copy Control 7 Tri-Color FISH Probe
**Dilution:** Ready-to-use
**Volume:** 100 µL

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

**Summary and Explanation:**
During the malignant transformation of cervical squamous cells from normal to malignant there are two key events. The first is infection by high risk sub-types of the human papilloma virus (HPV), followed by chromosomal instability characterized by an increase in chromosome copy number (polysomy) and by TERC gene amplification. The genetic changes are associated with high-grade intraepithelial neoplasia and progression to invasive carcinoma. The use of FISH to detect TERC amplification has been shown to be an effective tool in a differential diagnosis of cervical disorders. High grade lesions have been reported to show amplification in up to 83% of cases vs approx. 43% of low grade cases.

**Principle of Procedure**
The TERC (3q26.2) Probe is designed to provide coverage of the 3q26.2 (~618 kb) region of chromosome 3. The 5p15.2 Probe is designed to provide coverage of the 5p15.2 (~353 kb) region of chromosome 5. The Copy Control 7 Probe is designed to provide coverage of the 7p11.1-q11.1 region of chromosome 7. A normal cell would show two orange, two green, and two aqua signals.

**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 -20ºC 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.

<table>
<thead>
<tr>
<th>Fluorophore</th>
<th>Excitation (nm)</th>
<th>Emission (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQUA</td>
<td>432</td>
<td>472</td>
</tr>
<tr>
<td>GREEN</td>
<td>498</td>
<td>521</td>
</tr>
<tr>
<td>ORANGE</td>
<td>546</td>
<td>575</td>
</tr>
<tr>
<td>RED</td>
<td>593</td>
<td>618</td>
</tr>
</tbody>
</table>

**Limitations:**
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 with reagents and specimens. If reagents or specimens come in
contact with sensitive areas, wash with copious amounts of water.  

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: