

ERBB2 (17q12) Orange + Copy Control 17 Green

FISH Probe
902-7014-042718

BIOCARE
M E D I C A L

Catalog Number: PFR7014A

Description: ERBB2 (17q12) Orange + Copy Control 17 Green FISH Probe

Dilution: Ready-to-use

Volume: 100 µL

Intended Use:

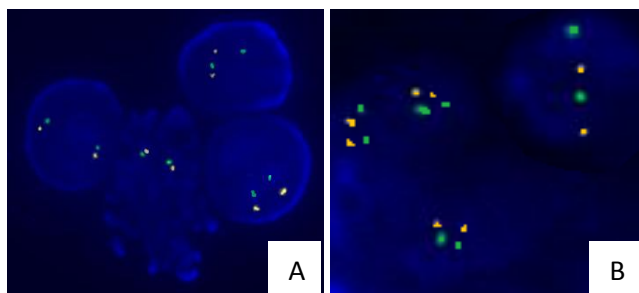
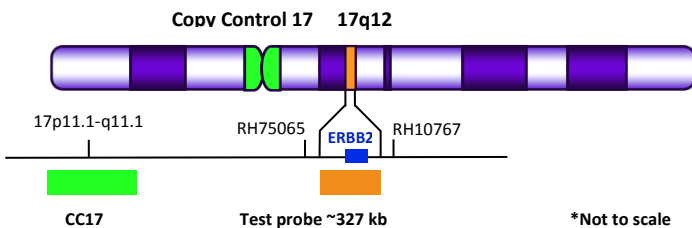
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

The ERBB2 (17q12) Orange + Copy Control 17 Green FISH probe is designed to detect the amplification of the ERBB2 (HER2) gene. The ERBB2 gene is located on chromosome 17 and encodes a tyrosine kinase epidermal growth factor receptor¹. Approximately 20% of breast cancers harbor ERBB2 overexpression and/or gene amplification¹. The amplification of the ERBB2 gene is considered a common prognostic marker in breast cancer and is associated with an aggressive phenotype². Fluorescence in situ hybridization (FISH) is one of the approved diagnostic techniques utilized to distinguish ERBB2 gene amplification¹.

Principle of Procedure:

The ERBB2 probe is ~327 kb in size, located on chromosome 17q12 and spans the ERBB2 gene. A control probe labeled in green located in the centromeric region of chromosome 17 is included. When the probe is hybridized to a normal cell it will show two orange and two green signals.



(A) ERBB2 (17q12) Orange + Copy Control 17 Green hybridized on a normal blood sample. Interphase and metaphase cellular state are shown. (B) ERBB2 (17q12) Orange + Copy Control 17 Green 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 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	498	521
ORANGE	546	575

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 water³.

Technical Support:

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

References:

1. Hanna, Wedad M, Josef Rüschoff, Michael Bilous, Renata A Coudry, Mitch Dowsett, Robert Y Osamura, Frédérique Penault-Llorca, Marc Van De Vijver, and Giuseppe Viale. "HER2 in Situ Hybridization in Breast Cancer: Clinical Implications of Polysomy 17 and Genetic Heterogeneity." *Modern Pathology* (2013).
2. McCormick, Md Stanley R., Md Tamera J. Lillemoe, Md Janet Beneke, Md(Ascp) John Schrauth, and Md John Reinartz. "HER2

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Assessment by Immunohistochemical Analysis and Fluorescence In Situ Hybridization." *American Journal of Clinical Pathology* (2002): 935-43.

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.