

EGFR (7p11.2) Red + Copy Control 7 Green

FISH Probe
902-7013-102517

BIOCARE
M E D I C A L

Catalog Number: PFR7013A

Description: EGFR (7p11.2) Red+ Copy Control 7 Green FISH Probe

Dilution: Ready-to-use

Volume: 100 µL

Intended Use:

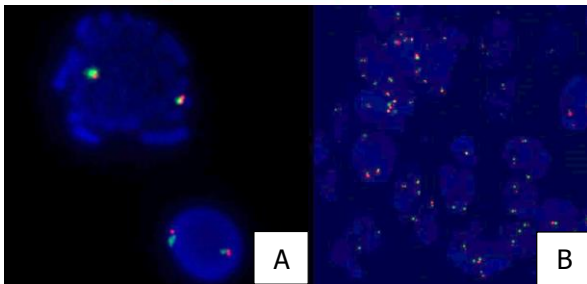
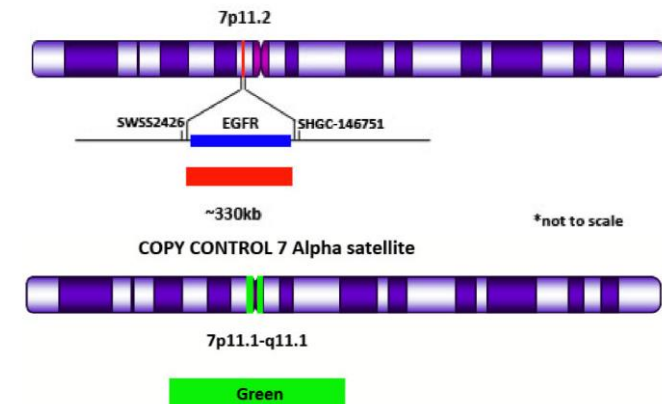
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:

The epidermal growth factor receptor (EGFR) is a transmembrane tyrosine kinase involved in the control of cell growth and differentiation. Amplification of the EGFR gene has been observed in both breast and non-small cell lung cancers.^{1,2}

Principle of Procedure:

The EGFR (7p11.2) Red + Copy Control 7 Green FISH probe is designed to detect amplifications of the EGFR gene. The EGFR red probe spans ~330kb of the EGFR (7p11.2) region. A control probe labeled in green located in the centromeric region of chromosome 7 is included. When the probe is hybridized to a normal cell it will show two red and two green signals.



(A) EGFR (7p11.2) Red+ Copy Control 7 Green FISH probe hybridized on normal blood sample. Interphase and metaphase cellular states are shown. (B) EGFR (7p11.2) Red+ Copy Control 7 Green 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 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	522
RED	592	628

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 water³.
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. Bhargava, Rohit, William L. Gerald, Allan R. Li, Qilu Pan, Priti Lal, Marc Ladanyi, and Beiyun Chen. "EGFR Gene Amplification in Breast Cancer: Correlation with Epidermal Growth Factor Receptor mRNA and Protein Expression and HER-2 Status and Absence of EGFR-activating Mutations." *Mod Pathol Modern Pathology* 18.8 (2005): 1027-033.
2. Jia, X.f., J. Li, H.b. Zhao, J. Liu, and J.j. Liu. "Correlation of EGFR Gene Amplification with Invasion and Metastasis of Non-small Cell Lung Cancer." *Genetics and Molecular Research Genet. Mol. Res.* 14.3 (2015): 11006-1012.
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.

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