

# ALK (2p23.2) Break Apart Orange/Green

FISH Probe  
902-7002-022618

**BIOCARE**  
M E D I C A L

**Catalog Number:** PFR7002 A

**Description:** ALK (2p23.2) Break Apart FISH Probe  
Orange/Green

**Dilution:** Ready-to-use

**Volume:** 100 µL

**Intended Use:**

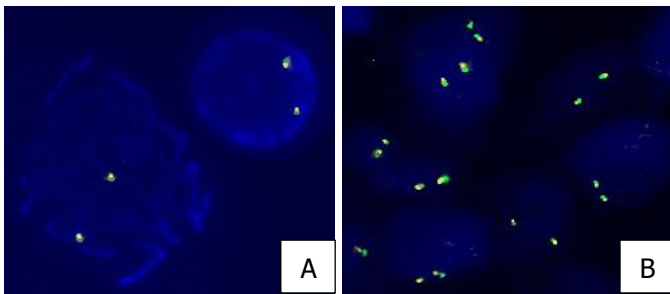
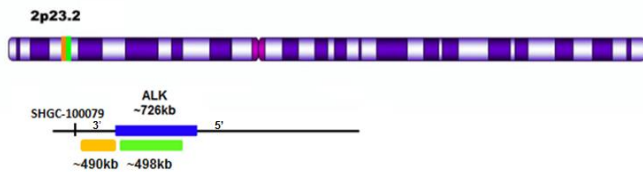
For Research Use Only. Not for use in diagnostic procedures.

**Summary and Explanation:**

The ALK (2p23.2) Break Apart FISH Probe is designed to detect the rearrangement of the ALK gene located on 2p23. The ALK gene can fuse with one of 20 known ALK gene rearrangement partners, the most common being  $t(2;5)(p23;q35)$ <sup>1</sup>. The resultant fusion proteins generated from ALK gene rearrangement plays a vital role in driving the pathogenesis of several different types of cancer, such as non-small cell lung cancer and anaplastic large cell lymphoma<sup>2</sup>.

**Principle of Procedure:**

The ALK (2p23.2) Break Apart (Orange/Green) is made up of an orange probe which flanks the 3' telomeric end of the ALK gene and a green probe which flanks the 5' centromeric end of the orange probe and covers part of the ALK gene. Two yellow (orange/green) fusion signals will be observed in normal diploid nuclei, when the probe is hybridized to a normal cell.



(A) ALK (2p23.2) Break Apart (Orange/Green) probe hybridized on normal blood sample. Interphase and metaphase cellular state are shown. (B) ALK (2p23.2) Break Apart (Orange/Green) probe hybridized on lung FFPE sample.

**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. 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 Break Apart 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 water<sup>3</sup>.

**Technical Support:**

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

**References:**

1. Pearson, Joel D., Jason K. H. Lee, Julinor T. C. Bacani, Raymond Lai, and Robert J. Ingham. "NPM-ALK: The Prototypic Member of a Family of Oncogenic Fusion Tyrosine Kinases." *Journal of Signal Transduction*: 1-14.
2. Iacono, D., R. Chiari, G. Metro, C. Bennati, G. Bellezza, C. Cenci, B. Ricciuti B, A. Sidoni, S. Baglivo, V. Minotti, and L. Crinò. "Future Options for ALK-positive Non-small Cell Lung Cancer." *Lung Cancer* 87.3 (2014): 211-219.
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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Rev. 062117

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