BCL2 (18q21) Break Apart Orange/Green

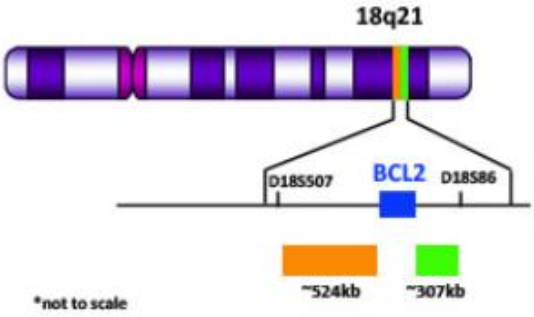
FISH Probe
902-7005-102517

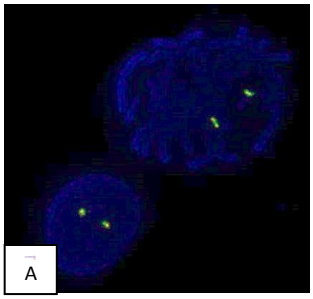
Catalog Number: PFR7005A
Description: BCL2 (18q21) Break Apart FISH Probe Orange/Green
Dilution: Ready-to-use
Volume: 100 µL

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

Summary and Explanation:
The BCL2 break apart probe is designed to detect chromosomal rearrangements involving the BCL2 gene on chromosome 18. The BCL2 gene is a proto-oncogene that encodes an anti-apoptotic signaling protein[1]. The BCL2 gene rearrangement is considered one of the hallmark cytogenetic abnormalities associated with B-Cell lymphomas [1]. Follicular lymphoma, a B-Cell lymphoma subtype, is strongly characterized by gene rearrangements involving the BCL2 gene and the immunoglobulin heavy-chain (IGH) gene[2]. This genetic rearrangement results in the constitutive activation of the BCL2 gene and is considered one of the gene abnormalities that drives Follicular lymphoma pathogenesis[3]. Conventional cytogenetic techniques such as fluorescent in situ hybridization (FISH) can be utilized to detect gene arrangements involving the BCL2 gene.

Principle of Procedure:
BCL2 Break Apart probe is a dual color probe designed to detect rearrangements of the BCL2 gene at the 18q21 region. The ~524kb probe labeled in orange flanks the centromeric end of the BCL2 gene and the ~307kb probe labeled in green flanks the telomeric end of the BCL2 gene. When the probe is hybridized to a normal cell it will show two orange/green (yellow) fusion signal patterns.





(A) BCL2 (18q21) Break Apart (Orange/Green) probe hybridized on normal blood sample. Interphase and metaphase cellular state are shown.

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 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)
ORANGE	537	556
GREEN	498	522

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, 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). 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

Biocare Medical
60 Berry Drive
Pacheco, CA 94553
USA

Tel: 800-799-9499 | www.biocare.net | Fax: 925-603-8080

contact with sensitive areas, wash with copious amounts of water[4].

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

References:

1. Hirt, Carsten, M. Constanza Camargo, Kelly J. Yu, Stephen M. Hewitt, Gottfried Dölken, and Charles S. Rabkin. "Risk of Follicular Lymphoma Associated with BCL2 Translocations in Peripheral Blood." Leukemia & Lymphoma Leuk Lymphoma (2015): 1-5. Print.
2. Vaandrager, Jan-Willem, Ed Schuuring, Ton Raap, Katja Philippo, Karin Kleiverda, and Philip Kluin. "Interphase FISH Detection of BCL2 Rearrangement in Follicular Lymphoma Using Breakpoint-flanking Probes." Genes, Chromosomes and Cancer Genes Chromosom. Cancer (2000): 85-94. Print.
3. Tellier, J., C. Menard, S. Roulland, N. Martin, C. Monvoisin, L. Chasson, B. Nadel, P. Gaulard, C. Schiff, and K. Tarte. "Human T(14;18)positive Germinal Center B Cells: A New Step in Follicular Lymphoma Pathogenesis?" Blood (2014): 3462-465. Print.
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.

Biocare Medical
60 Berry Drive
Pacheco, CA 94553
USA

Tel: 800-799-9499 | www.biocare.net | Fax: 925-603-8080