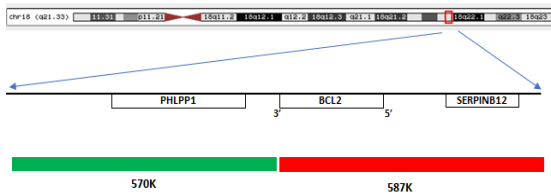


BRIGHTDOM FISH Probes: BCL2 (18q21) Break-apart

BCL2 BAP



Gene: BCL2 (18q21); Centromere 3'-5' Telomere
5' region/BCL2 (Orange): hg38:chr18:63,128,960-63,716,087
Target size: 582K
3' region (Green): hg38:chr18:62,520,556-63,090,858
Target size: 570K
Functionally critical region: BCL2 gene, labeled orange.

Introduction: The BCL2 (18q21) break-apart FISH probe is optimized to detect translocations involving the BCL2 gene region at 18q21. The BCL2 gene locus is labelled with an orange dye, which enables the laboratory to detect an insertion of BCL2 gene into IGH, IGK, IGL, or other gene locus as well as the typical translocations.

5' ALK region (Green): The 5' region of BCL2 gene locus and BCL2 gene (18q21) are labeled with an orange dye.

3' ALK region (Orange): The 3' region of BCL2 (18q21) gene locus is labeled with a green dye.

Functionally critical region (Orange): The BCL2 gene locus is labeled with an orange dye.

Signal Patterns: The BCL2 (18q21) break-apart FISH probes are designed as dual-color break-apart probes to detect translocations at 18q21 as well as insertions of the BCL2 gene into IGH, IGK, IGL, or other gene locus. A specimen considered positive for BCL2 rearrangement shows a separation of orange and green signals. In addition, the signal pattern of two fusion and one orange (2F1O, cases 1 and 2) indicates an insertion of BCL2 gene into another gene locus or a translocation with break point at the 5' region of BCL2 gene. The signal pattern of one fusion and one green (1F1G) indicates a deletion of 18q21 including the BCL2 gene, while the signal pattern of one fusion and one orange (1F1O) suggests a deletion of 18q21 without affecting the BCL2 gene locus, or a translocation involving a deletion of 3' region of BCL2 gene locus. In each case, it is possible that the BCL2 gene is relocated to another gene locus, therefore, resulting in overexpression BCL2.

