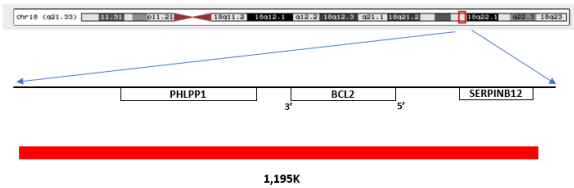
BRIGHTDOMFISH Probes: IGH (14q32)/BCL2 (18q21 Dual color/Dual fusion

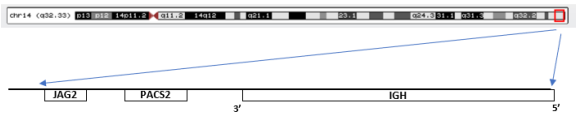
BCL2



1,195K

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

IGH (14q32)



1,915K

Gene: IGH (14q32); Centromere 3'-5' Telomere
5' region (Green): hg38:chr14:104,964,718-106,879,781
Target size: 1,915K

Introduction: The IGH/BCL2 dual-color/dual-fusion probes are optimized to detect translocations involving the IGH gene 14q32 and BCL2 gene at 18q21.

IGH region (Green): The IGH (14q32) gene locus is labeled with a green dye.

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

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

Signal Patterns: The IGH/BCL2 dual-color/dual-fusion probes are optimized to detect translocations involving the IGH gene at 14q32 and BCL2 gene at 18q21. A specimen considered positive for IGH::BCL2 fusion shows a signal pattern of two fusion signals, one orange signal, and one green signal (2F1O1G). Occasionally, other atypical signal patterns, e.g. 1F2O1G (an insertion of BCL2 into IGH locus) and 1F1O1G (above the cut-off) may also indicate a IGH::BCL2 fusion. Three orange signals might represent a gain of BCL2/18q21 or a BCL2 gene rearrangement with a partner gene other than IGH, while three green signals might represent a gain of IGH/14q32 or an IGH gene rearrangement with a particular gene other than BCL2. In either case, further investigations are warranted.