

ZytoLight® SPEC BCL2/CEN 18 Dual Color Probe



Background

The ZytoLight® SPEC BCL2/CEN 18 Dual Color Probe is designed for the detection of amplifications of the chromosomal region harboring the BCL2 gene.

The BCL2 (B-cell CLL/lymphoma 2, a.k.a. PPP1R50) gene is located on chromosome 18q21.33 and encodes an antiapoptosis factor involved in normal B-cell development and differentiation. The expression of BCL2 usually decreases upon B-cell differentiation. However, increased BCL2 expression has been detected in lymphomas harboring the translocation t(14;18) (q32.3;q21.3). Moreover, overexpression of BCL2 can also be caused by amplification of the BCL2 gene as detected in diffuse large B-cell lymphoma (DLBCL) and mantle cell lymphoma (MCL).

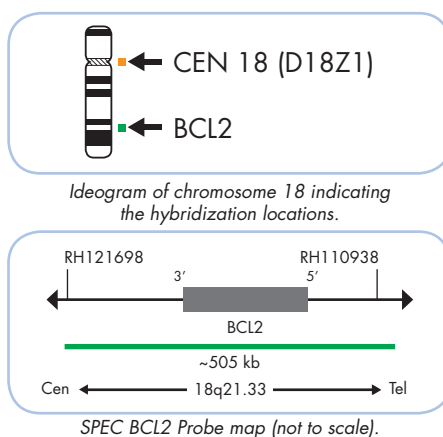
DLBCL is the most common type of non-Hodgkin lymphoma characterized by an aggressive clinical course. On the basis of their gene expression profiles, ABC (activated B-cell-like) and GCB (germinal center B-cell-like) were identified as two molecular subtypes of DLBCL. BCL2 was found to be frequently amplified in the ABC subgroup of DLBCL but rarely in the GCB subgroup. BCL2 overexpression as a result of 18q21 amplification is associated with poor survival in the ABC subgroup. Hence, the identification of BCL2 gene copy number changes by Fluorescence *in situ* Hybridization may be of prognostic significance in non-Hodgkin lymphomas.

References

- Alizadeh AA, et al. (2000) Nature 403: 503-11.
Beà S, et al. (2009) Blood 113: 3059-69.
Iqbal J, et al. (2006) J Clin Oncol 24: 961-8.
Monni O, et al. (1999) Leuk Lymphoma 34: 45-52.

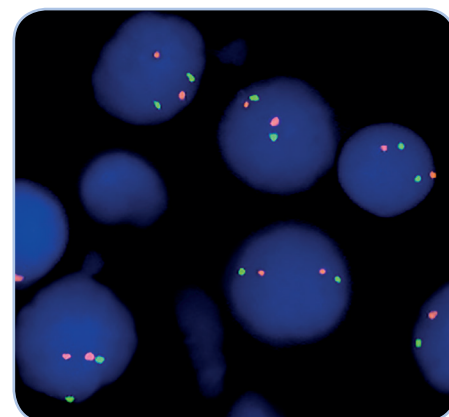
Probe Description

The SPEC BCL2/CEN 18 Dual Color Probe is a mixture of a green fluorochrome direct labeled SPEC BCL2 probe hybridizing to the human BCL2 gene in the chromosomal region 18q21.33 and an orange fluorochrome direct labeled CEN 18 probe specific for the alpha satellite centromeric region of chromosome 18 (D18Z1).



Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with amplification of the BCL2 gene locus, multiple copies of the green signal or green signal clusters will be observed.



SPEC BCL2/CEN 18 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.

Prod. No.	Product	Label	Tests* (Volume)
Z-2174-50	ZytoLight SPEC BCL2/CEN 18 Dual Color Probe CE IVD	●/●	5 (50 µl)
Related Products			
Z-2028-5	ZytoLight FISH-Tissue Implementation Kit CE IVD		5
Incl. Heat Pretreatment Solution Citric, 150 ml; Pepsin Solution, 1 ml; Wash Buffer SSC, 150 ml; 25x Wash Buffer A, 50 ml; DAPI/DuraTest-Solution, 0.2 ml			

* Using 10 µl probe solution per test. CE IVD only available in certain countries. All other countries research use only! Please contact your local dealer for more information.