ZytoLight® SPEC BCL2L2/14q32 Dual Color Probe

CE IVD

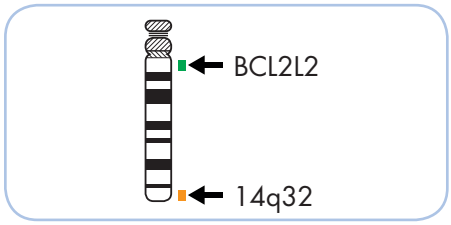
Background

The ZytoLight® SPEC BCL2L2/14q32 Dual Color Probe is designed for the detection of BCL2L2 gene amplifications.
The BCL2L2 (BCL2-like 2, a.k.a. BCL-W) gene is located in the chromosomal region 14q11.2 and encodes for an anti-apoptotic protein that belongs to the BCL2 family. These genes are involved in a wide variety of cellular activities including lymphocyte development and hematopoiesis. BCL2L2 amplifications have been reported in several human cancers including lung, ovarian, breast, and hematologic malignancies.
BCL2L2 amplifications are found in many tumor cell lines with resistance to chemotherapeutic agents. Targeting the BCL2 family proteins with small non-peptidic compounds, so called BH3-mimetics, is currently investigated in clinical trials. Hence, the identification of BCL2L2 amplifications by Fluorescence *in situ* Hybridization and the inhibition of BCL2L2 signaling may be of therapeutic significance in various types of tumors.

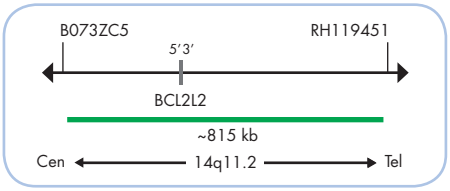
References
Beroukhim R, et al. (2010) Nature 463: 899-905.
Booher RN, et al. (2014) PloS One 9: e108371.
Sochalska M, et al. (2015) FEBS J 282: 834-49.
Yasui K, et al. (2004) Cancer Res 64: 1403-10.

Probe Description

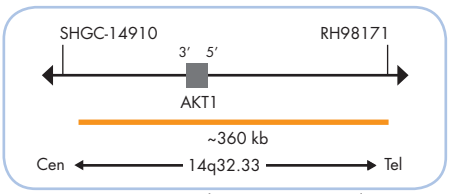
The SPEC BCL2L2/14q32 Dual Color Probe is a mixture of a green fluorochrome direct labeled SPEC BCL2L2 probe hybridizing to the BCL2L2 gene in the chromosomal region 14q11.2 and an orange fluorochrome direct labeled SPEC 14q32 probe specific for the chromosomal region 14q32.33. Due to cross-hybridizations of chromosome 14 alpha satellites to other centromeric regions, probes specific for 14q32 are frequently used for chromosome 14 copy number detection.



Ideogram of chromosome 14 indicating the hybridization locations.



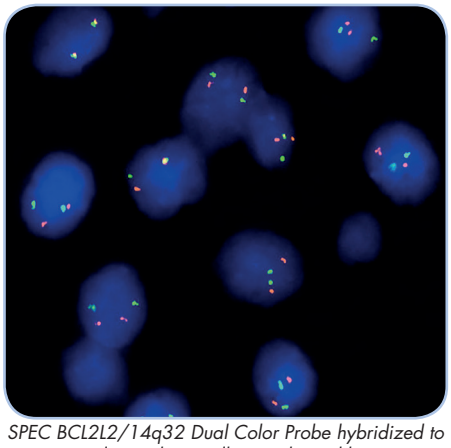
SPEC BCL2L2 Probe map (not to scale).



SPEC 14q32 Probe map (not to scale).

Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with amplification of the BCL2L2 gene locus, multiple copies of the green signal or green signal clusters will be observed.



SPEC BCL2L2/14q32 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-2172-200	ZytoLight SPEC BCL2L2/14q32 Dual Color Probe CE IVD	●/●	20 (200 µl)
Related Products			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit CE IVD Incl. Heat Pretreatment Solution Citric, 500 ml; Pepsin Solution, 4 ml; Wash Buffer SSC, 500 ml; 25x Wash Buffer A, 100 ml; DAPI/DuraTect-Solution, 0.8 ml		20

** 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.*

FE107-1-16

ZytoLight® FISH probes are direct labeled using the unique ZytoLight® *Direct Label System II* providing improved signal intensity. Advanced specificity of the single copy SPEC probes is obtained by the unique ZytoVision® *Repeat Subtraction Technique.*

ZytoVision GmbH · Fischkai 1
27572 Bremerhaven · Germany
www.zytovision.com