

ZytoLight® SPEC MYB/CEN 6 Dual Color Probe

Background

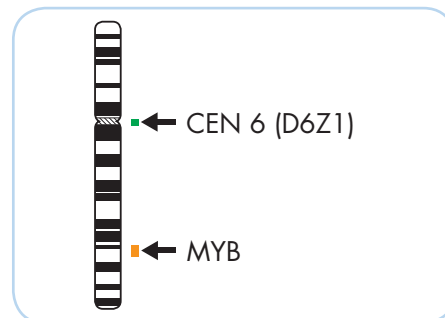
The ZytoLight® SPEC MYB/CEN 6 Dual Color Probe is designed to detect deletions affecting the chromosomal region 6q23.3 harboring the MYB gene. The MYB (MYB proto-oncogene, transcription factor, a.k.a c-myb) gene encodes for a transcription factor which is primarily expressed in premature lymphoid and myeloid T-cells. Aberrations of 6q are the most commonly found chromosomal changes for different types of lymphoid neoplasms. Several major deletion regions have been detected on the long arm of chromosome 6, one of them is 6q23. 3-10% of chronic lymphocytic leukemia (CLL) cases have been shown to harbor structural aberrations in the chromosomal region 6q. Deletions of MYB often occur as secondary changes indicating disease progression. CLL patients presenting a 6q23 deletion seem to exhibit a more favorable prognosis than patients with 11q23.3 and 17p13 deletions. However, the prognostic relevance of 6q deletions in CLL is still controversially discussed. Since conventional cytogenetic methods often miss alterations in CLL, investigation by molecular cytogenetic methods such as Fluorescence *in situ* Hybridization (FISH) may be of diagnostic and prognostic relevance.

References

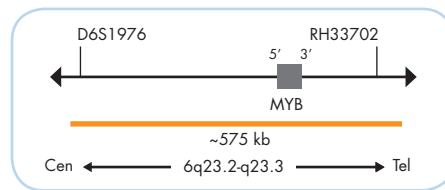
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- Johansson B, et al. (1993) Genes Chromosomes Cancer 8: 205-18.
- Stilgenbauer S, et al. (1999) Leukemia 13: 1331-4.
- Urbankova H, et al. (2014) Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub 158: 56-64.
- Wang DM, et al. (2011) Leuk Lymphoma 52: 230-7.

Probe Description

The SPEC MYB/CEN 6 Dual Color Probe is a mixture of a green fluorochrome direct labeled CEN 6 probe specific for the alpha satellite centromeric region of chromosome 6 (D6Z1) and an orange fluorochrome direct labeled SPEC MYB probe specific for the chromosomal region 6q23.2-23.3 harboring the MYB gene.



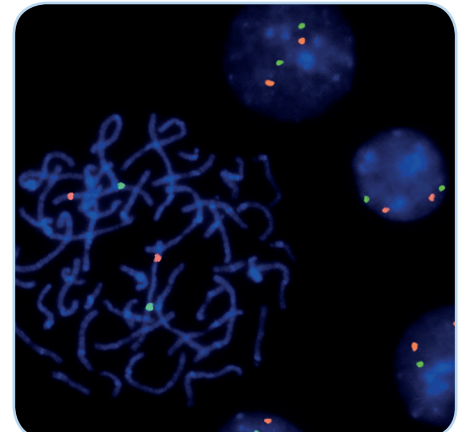
Ideogram of chromosome 6 indicating the hybridization locations.



SPEC MYB Probe map (not to scale).

Results

In a normal interphase nucleus, two green and two orange signals are expected. In a cell with deletion affecting the 6q23.3 locus, one or no copy of the orange signal will be observed.



SPEC MYB/CEN 6 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus and to metaphase chromosomes of a normal cell.

Prod. No.	Product	Label	Tests* (Volume)
Z-2281-50	ZytoLight SPEC MYB/CEN 6 Dual Color Probe CE IVD	●/●	5 (50 µl)
Related Products			
Z-2028-5	ZytoLight FISH-Tissue Implementation Kit CE IVD Incl. Heat Pretreatment Solution Citric, 150 ml; Pepsin Solution, 1 ml; Wash Buffer SSC, 210 ml; 25x Wash Buffer A, 50 ml; DAPI/DuraTect-Solution, 0.2 ml		5
Z-2099-20	ZytoLight FISH-Cytology Implementation Kit CE IVD Incl. Cytology Pepsin Solution, 4 ml; 20x Wash Buffer TBS, 50 ml; 10x MgCl ₂ , 50 ml; 10x PBS, 50 ml; Cytology Stringency Wash Buffer SSC, 500 ml; Cytology Wash Buffer SSC, 500 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.