

ZytoLight® SPEC PTPRT/20q11 Dual Color Probe



Background

The ZytoLight® SPEC PTPRT/20q11 Dual Color Probe is designed to detect deletions of the long arm of chromosome 20. 20q deletions can occur in various myeloid disorders, e.g., myelodysplastic syndromes (MDS), acute myeloid leukemia (AML), and myeloproliferative neoplasms (MPNs). In MDS, del(20q) as the sole cytogenetic abnormality, is associated with a favorable prognosis, with better survival, and a lower risk for transformation to AML. Del(20q) occurring with additional cytogenetic aberrations predicts a poor prognosis. The breakpoints of the 20q deletion were identified to be heterogeneous in several studies. The minimal common deleted region (CDR) was defined to be flanked by the genes PTPRT (20q12) and EYA2 (20q13.12).

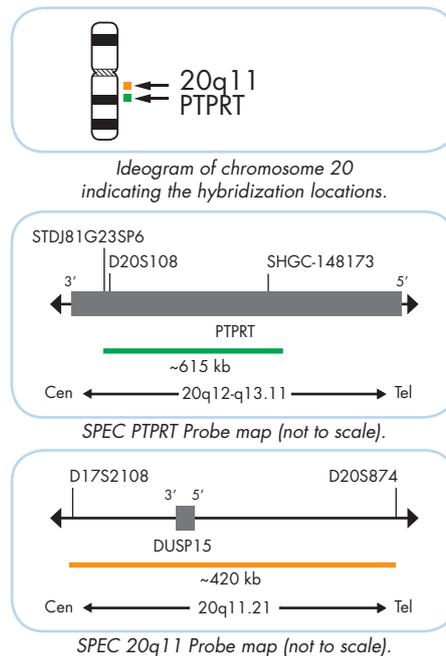
It has been suggested that one or more tumor suppressor genes could be located in the CDR, the deletion or inactivation of which may play a role in malignant growth. However, the target gene(s) remain unknown.

References

Bacher U, et al. (2014) Br J Haematol 164: 822-33.
 Brezinová J, et al. (2005) Cancer Genet Cytogenet 160: 188-92.
 Okada M, et al. (2012) Cancer Genet 205: 18-24.
 Testa JR, et al. (1978) Blood 52: 868-77.

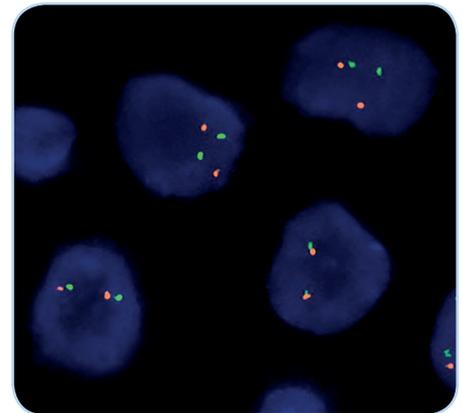
Probe Description

The SPEC PTPRT/20q11 Dual Color Probe is a mixture of a green fluorochrome direct labeled SPEC PTPRT probe hybridizing in the CDR at 20q12, an orange fluorochrome direct labeled SPEC 20q11 probe specific for the chromosomal region 20q11.21 harboring the DUSP15 gene. For an unambiguous enumeration of chromosome 20, the SPEC 20q11 is found to be suitable.

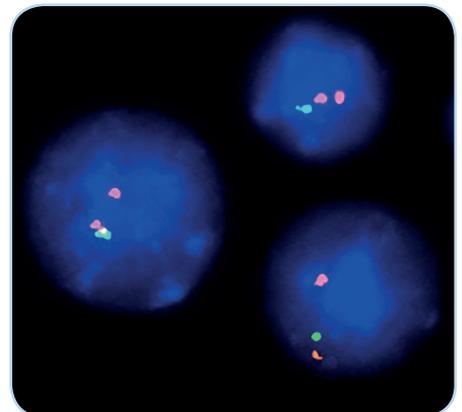


Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with deletions affecting the 20q12 locus, one or no copy of the green signal will be observed.



SPEC PTPRT/20q11 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.



Lymphocytes of a myelodysplastic syndrome showing a 20q deletion indicated by one single green and two orange signals in each nucleus.

Material kindly provided from Dr. Saurabh Bhattacharya, Lal PathLabs, India.

Prod. No.	Product	Label	Tests* (Volume)
Z-2213-50	ZytoLight SPEC PTPRT/20q11 Dual Color Probe CE IVD	●/●	5 (50 µl)
Related Products			
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.