

ZytoLight® SPEC 1p36/1q25 Dual Color Probe

ZytoLight® SPEC 19q13/19p13 Dual Color Probe

Background

The ZytoLight® SPEC 1p36/1q25 Dual Color Probe and the SPEC 19q13/19p13 Dual Color Probe are designed for the detection of 1p and 19q deletions, respectively.

Deletions affecting the short arm of chromosome 1 (1p) are frequently found in human gliomas and neuroblastomas, but also in breast, lung, endometrial, ovarian, and colorectal carcinomas. Loss of 1p is a strong prognostic factor in patients with neuroblastoma. Since loss of 1p reliably identifies patients at high risk in stages I, II, and IVS, which are otherwise clinically favorable, more aggressive therapy may be considered in these patients.

Deletions affecting the long arm of chromosome 19 (19q) are frequently found in human malignant gliomas as well as in neuroblastomas and epithelial ovarian cancers.

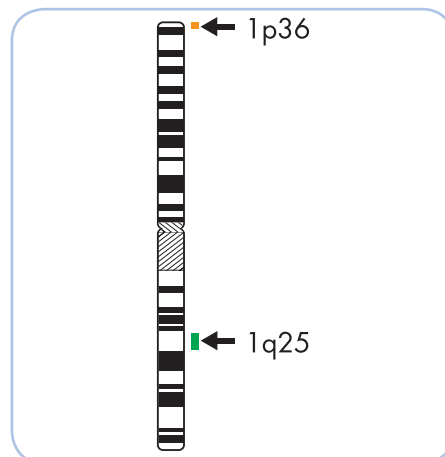
Several studies showed correlation of combined allelic losses at 1p36 and 19q13 with oligodendroglioma histology and association with both chemotherapeutic response and survival in patients with anaplastic oligodendrogliomas. Hence, determination of 1p and 19q status may aid in therapeutic decisions and predict outcome in patients with anaplastic oligodendrogliomas.

References

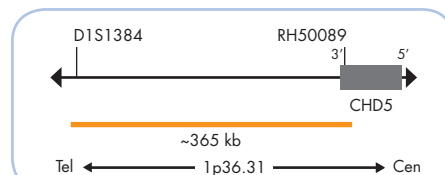
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Probe Description

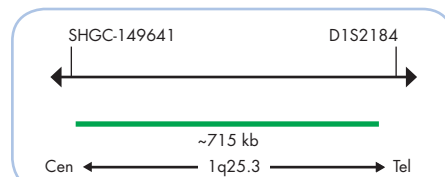
The SPEC 1p36/1q25 Dual Color Probe is a mixture of an orange fluorochrome direct labeled 1p36 probe specific for the smallest region of consistent deletion (SRD) of chromosome 1 defined in neuroblastoma at 1p36.31 and a green fluorochrome direct labeled 1q25 probe specific for 1q25.3.



Ideogram of chromosome 1 indicating the hybridization locations.

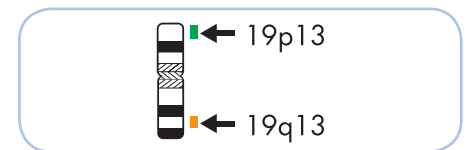


SPEC 1p36 Probe map (not to scale).

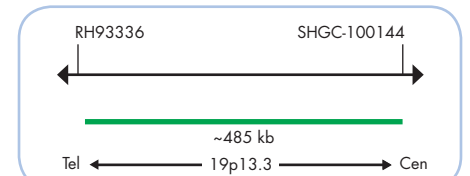


SPEC 1q25 Probe map (not to scale).

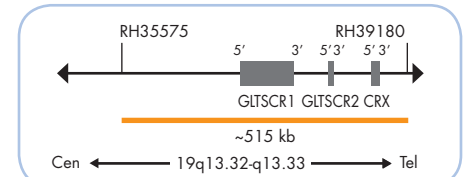
The SPEC 19q13/19p13 Dual Color Probe is a mixture of an orange fluorochrome direct labeled 19q13 probe specific for the region of common deletion in gliomas at 19q13.32-q13.33 and a green fluorochrome direct labeled 19p13 probe specific for 19p13.3.



Ideogram of chromosome 19 indicating the hybridization locations.



SPEC 19p13 Probe map (not to scale).

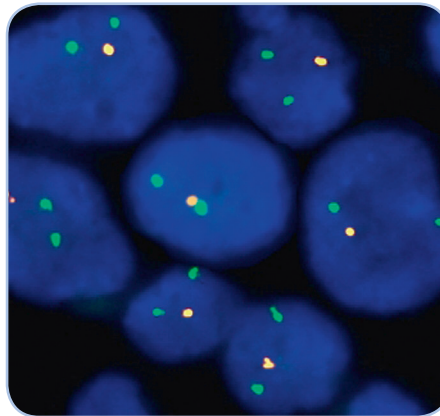


SPEC 19q13 Probe map (not to scale).

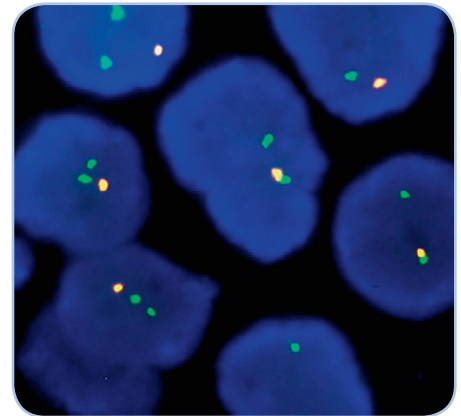
Results

Using the SPEC 1p36/1q25 Dual Color Probe in a normal interphase nucleus, two orange and two green signals are expected. In a cell with deletions affecting the 1p36 locus, one or no copy of the orange signal will be observed.

Using the SPEC 19q13/19p13 Dual Color Probe in a normal interphase nucleus, two orange and two green signals are expected. In a cell with deletions affecting the 19q13 locus, one or no copy of the orange signal will be observed.



SPEC 1p36/1q25 Dual Color Probe hybridized to a glioma tissue section with 1p36 deletion as indicated by one orange signal in each nucleus.



SPEC 19q13/19p13 Dual Color Probe hybridized to a glioma tissue section with 19q13 deletion as indicated by one orange signal in each nucleus.

Prod. No.	Product	Label	Tests* (Volume)
Z-2075-50	ZytoLight SPEC 1p36/1q25 Dual Color Probe €€ [IVD]	●/●	5 (50 µl)
Z-2075-200	ZytoLight SPEC 1p36/1q25 Dual Color Probe €€ [IVD]	●/●	20 (200 µl)
Z-2076-50	ZytoLight SPEC 19q13/19p13 Dual Color Probe €€ [IVD]	●/●	5 (50 µl)
Z-2076-200	ZytoLight SPEC 19q13/19p13 Dual Color Probe €€ [IVD]	●/●	20 (200 µl)
Related Products			
Z-2028-5	ZytoLight FISH-Tissue Implementation Kit €€ [IVD] Incl. Heat Pretreatment Solution Citric, 150 ml; Pepsin Solution, 1 ml; Wash Buffer SSC, 150 ml; 25x Wash Buffer A, 50 ml; DAPI/DuraTect-Solution, 0.2 ml		5
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit €€ [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. €€ [IVD] only available in certain countries. All other countries research use only! Please contact your local dealer for more information.