ZytoLight® SPEC SS18 Dual Color Break Apart Probe

CE IVD

Background

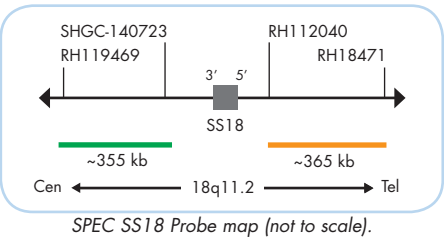
The ZytoLight® SPEC SS18 Dual Color Break Apart Probe is designed to detect translocations involving the chromosomal region 18q11.2 harboring the SS18 (SS18, nBAF chromatin remodeling complex subunit, a.k.a. SYT) gene. Translocations involving the region 18q11.2 are found in over 90% of synovial sarcoma. Among soft tissue sarcomas, synovial sarcoma is one of the most common and classically occurs in the extremities of young adults with greater prevalence in males even though, the occurrence of synovial sarcoma has also been described in a wide variety of anatomical locations and in all ages. The most frequent translocation involving the SS18 gene region is t(X;18)(p11.23;q11.2) juxtaposing the SS18 gene in 18q11.2 either next to the SSX1 (synovial sarcoma, translocated to X chromosome) or the SSX2 gene, or very rarely to the SSX4 locus located in Xp11.23. Complex translocations involving other chromosomes are observed in less than 10% of synovial sarcomas. In combination with histopathological diagnosis, detection of SS18 rearrangements via FISH analysis is a valuable tool to confirm the diagnosis of synovial sarcoma.

References
Amary MF, et al. (2007) Mod Pathol 20: 482-96.
Clark J, et al. (1994) Nat Genet 7: 502-8.
Ilmiawan MI, et al. (2012) Med J Indones 21: 196-202.
Kawai A, et al. (1998) N Engl J Med 338: 153-60.
Surace C, et al. (2004) Lab Invest 84: 1185-92.
Torres L, et al. (2008) Cancer Genet Cytogenet 187: 45-9.

Probe Description

The SPEC SS18 Dual Color Break Apart Probe is a mixture of two direct labeled probes hybridizing to the 18q11.2 band. The orange fluorochrome direct labeled probe hybridizes distal to the SS18 gene, the green fluorochrome direct labeled probe hybridizes proximal to that gene.

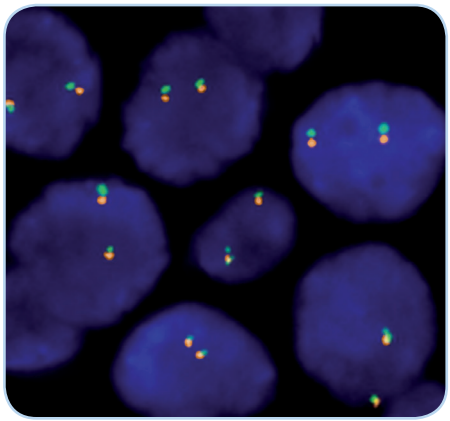
Ideogram of chromosome 18 indicating the hybridization locations.



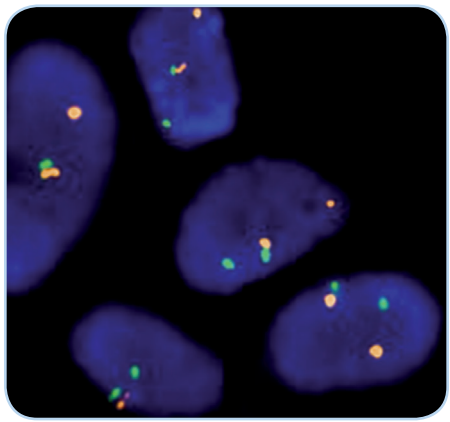
SPEC SS18 Probe map (not to scale).

Results

In an interphase nucleus lacking a translocation involving the 18q11.2 band two orange/green fusion signals are expected representing two normal (non-rearranged) 18q11.2 loci. A signal pattern consisting of one orange/green fusion signal, one orange signal, and a separate green signal indicates one normal 18q11.2 locus and one 18q11.2 locus affected by an 18q11.2 translocation.



SPEC SS18 Dual Color Break Apart Probe hybridized to normal interphase cells as indicated by two orange/green fusion signals per nucleus.



Synovial sarcoma tissue section with translocation affecting the 18q11.2 locus as indicated by one non-rearranged orange/green fusion signal, one orange signal, and one separate green signal.

Prod. No.	Product	Label	Tests* (Volume)
Z-2097-50	ZytoLight SPEC SS18 Dual Color Break Apart Probe CE IVD	●/●	5 (50 µl)
Z-2097-200	ZytoLight SPEC SS18 Dual Color Break Apart Probe CE IVD	●/●	20 (200 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-2028-20	ZytoLight FISH-Tissue Implementation Kit CE IVD Incl. Heat Pretreatment Solution Citric, 500 ml; Pepsin Solution, 4 ml; Wash Buffer SSC, 560 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.*