

ZytoLight® SPEC COL1A1/PDGFB Dual Color Dual Fusion Probe



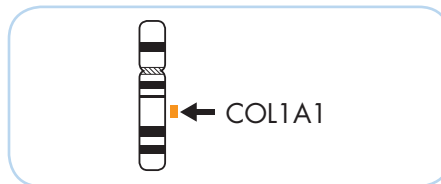
Background

The ZytoLight® SPEC COL1A1/PDGFB Dual Color Dual Fusion Probe (PL73) is intended to be used for the qualitative detection of the translocation t(17;22) (q21.3;q13.1) involving the human COL1A1 and PDGFB genes in formalin-fixed, paraffin-embedded specimens, such as dermatofibrosarcoma protuberans (DFSP), by fluorescence *in situ* hybridization (FISH). The probe is intended to be used in combination with the ZytoLight® FISH-Tissue Implementation Kit (Prod. No. Z-2028-5/-20). The product is intended for professional use only. All tests using the product should be performed in a certified, licensed anatomic pathology laboratory under the supervision of a pathologist/human geneticist by qualified personnel. The probe is intended to be used as an aid to the differential diagnosis of DFSP and therapeutic measures should not be initiated based on the test result alone.

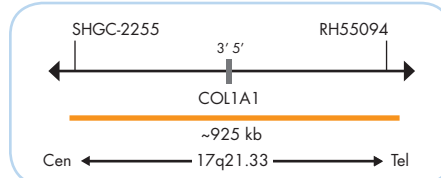
Probe Description

The ZytoLight® SPEC COL1A1/PDGFB Dual Color Dual Fusion Probe is composed of:

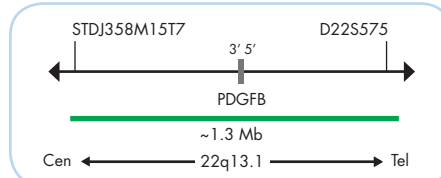
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~6 ng/μl), which target sequences mapping in 17q21.33** (chr17:47,820,343-48,744,021) harboring the COL1A1 gene region.
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~12 ng/μl), which target sequences mapping in 22q13.1** (chr22:38,928,973-40,267,687) harboring the PDGFB gene region.
- Formamide based hybridization buffer



Ideograms of chromosomes 17 (above) and 22 (below) indicating the hybridization locations.



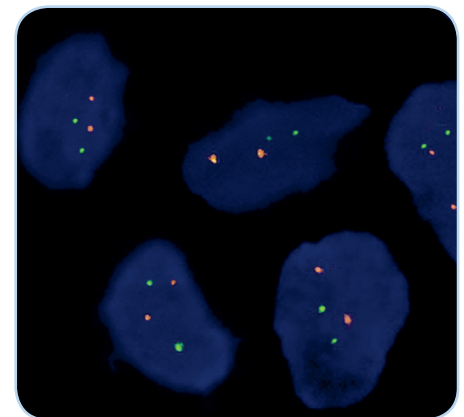
SPEC COL1A1 Probe map (not to scale).



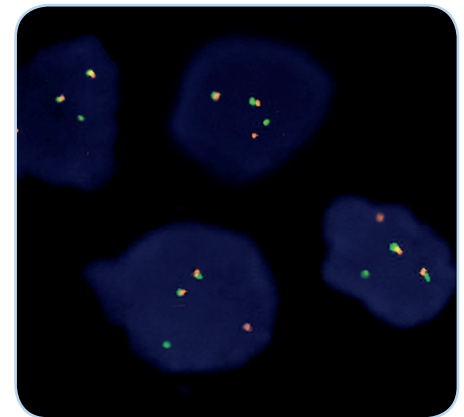
SPEC PDGFB Probe map (not to scale).

Results

In a normal interphase nucleus, two orange and two green signals are expected. A reciprocal translocation involving two breakpoints splits the two signals and generates a fusion signal on each of the chromosomes involved. The chromosomal regions which are not translocated are indicated by the single orange and green signal, respectively.



SPEC COL1A1/PDGFB Dual Color Dual Fusion Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.



DFSP tissue section with translocation affecting the COL1A1/PDGFB loci as indicated by one separate orange signal, one separate green signal, and two orange/green fusion signals.

Prod. No.	Product	Label	Tests* (Volume)
Z-2116-50	ZytoLight SPEC COL1A1/PDGFB Dual Color Dual Fusion Probe	●/●	5 (50 μl)
Z-2116-200	ZytoLight SPEC COL1A1/PDGFB Dual Color Dual Fusion Probe	●/●	20 (200 μl)
Related Products			
Z-2028-5	ZytoLight FISH-Tissue Implementation Kit		5
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			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit		20
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			

* Using 10 μl probe solution per test. labeled products are only available in certain countries. All other countries research use only! Please contact your local dealer for more information.

**According to Human Genome Assembly GRCh37/hg19