

ZytoLight® SPEC COL1A1 Dual Color Break Apart Probe



Background

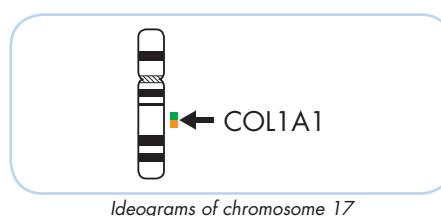
The ZytoLight® SPEC COL1A1 Dual Color Break Apart Probe (PL78) is intended to be used for the qualitative detection of translocations involving the human COL1A1 gene at 17q21.33 in formalin-fixed, paraffin-embedded specimens by fluorescence *in situ* hybridization (FISH). The probe is intended to be 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 various cancers and therapeutic measures should not be initiated based on the test result alone.

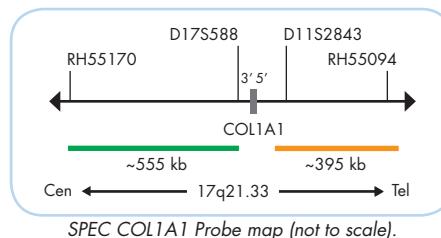
Probe Description

The ZytoLight® SPEC COL1A1 Dual Color Break Apart Probe is composed of:

- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 17q21.33** (chr17:47,669,218-48,223,465) proximal to the COL1A1 breakpoint region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 17q21.33** (chr17:48,347,800-48,744,021) distal to the COL1A1 breakpoint region.
- Formamide based hybridization buffer



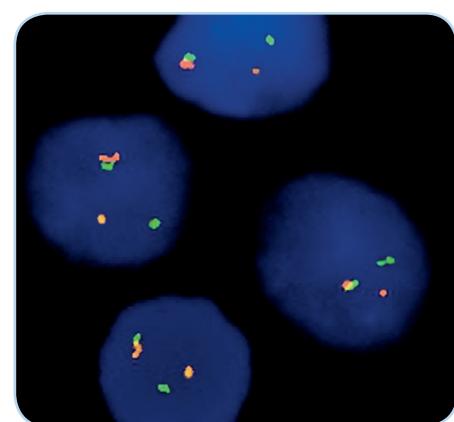
Ideograms of chromosome 17 indicating the hybridization locations.



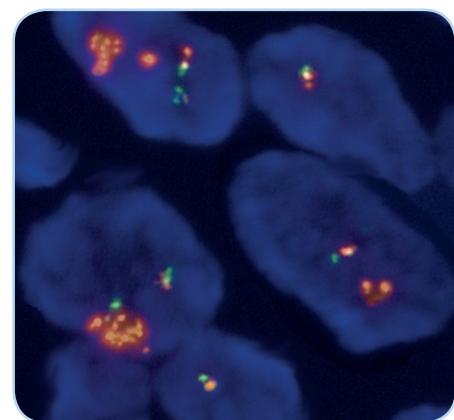
SPEC COL1A1 Probe map (not to scale).

Results

In a normal interphase nucleus lacking a translocation involving the 17q21.33 band, two orange/green fusion signals are expected representing two normal (non-rearranged) 17q21.33 loci. A signal pattern consisting of one orange/green fusion signal, one orange signal, and a separate green signal indicates one normal 17q21.33 locus and one 17q21.33 locus affected by a 17q21.33 translocation.



Example of an aberrant signal pattern: DFSP tissue section with translocation affecting the 17q21.33 locus as indicated by one non-rearranged orange/green fusion signal, one orange signal, and one separate green signal.



Example of an aberrant signal pattern: DFSP tissue section with amplification of the 17q21-qter and 22q10-q13.1 sequences probably due to a COL1A1-PDGFB fusion product on the ring chromosome.

Image kindly provided by Dr. Schildhaus, Essen, Germany.

Prod. No.	Product	Label	Tests* (Volume)
Z-2121-200	ZytoLight SPEC COL1A1 Dual Color Break Apart Probe CE IVD	○/●	20 (200 μl)
Related Products			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit CE IVD		20

* Using 10 μl probe solution per test. IVD 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