

ZytoLight® SPEC TP53/17q22 Dual Color Probe



Background

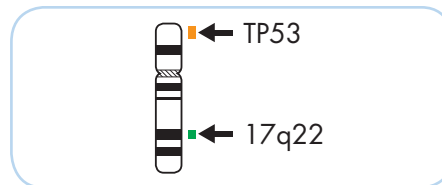
The ZytoLight® SPEC TP53/17q22 Dual Color Probe (PL156) is intended to be used for the qualitative detection of deletions involving the human TP53 gene as well as the detection of gains of chromosome 17q22 specific sequences in cytologic or formalin-fixed, paraffin-embedded specimens by fluorescence *in situ* hybridization (FISH). The probe is intended to be used in combination with ZytoLight® FISH Implementation Kits (Prod. No. Z-2028-5/-20, or Z-2099-20).

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.

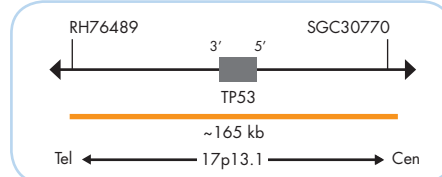
Probe Description

The ZytoLight® SPEC TP53/17q22 Dual Color Probe is composed of:

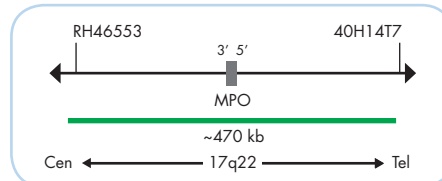
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/µl), which target sequences mapping in 17p13.1** (chr17:7,495,749-7,663,022) harboring the TP53 gene region.
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10.0 ng/µl), which target sequences mapping in 17q22** (chr17:56,124,338-56,594,220).
- Formamide based hybridization buffer



Ideogram of chromosome 17 indicating the hybridization locations.



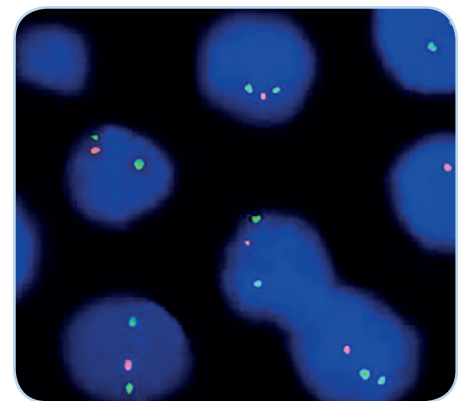
SPEC TP53 Probe map (not to scale).



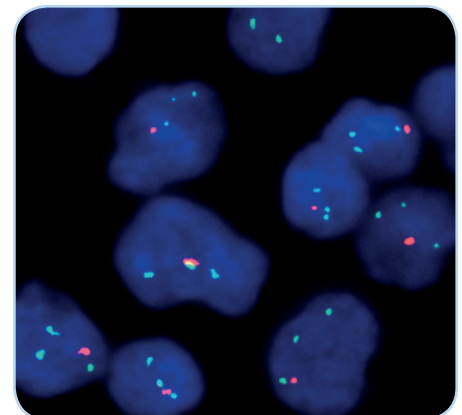
SPEC 17q22 Probe map (not to scale).

Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with deletion of the TP53 gene locus, one orange signal and two green signals can be detected. A gain of 17q involving the 17q22 region will result in three or more green signals and two orange signals. Isochromosome 17q is indicated by three green signals and one orange signal.



Example of an aberrant signal pattern: SPEC TP53/17q22 Dual Color Probe hybridized to bone marrow tissue section with deletion of the TP53 gene as indicated by one orange signal and two green signals in each nucleus.



Example of an aberrant signal pattern: SPEC TP53/17q22 Dual Color Probe hybridized to a bone marrow smear with isochromosome 17q as indicated by three green signals and one orange signal.

Prod. No.	Product	Label	Tests* (Volume)
Z-2198-50	ZytoLight SPEC TP53/17q22 Dual Color Probe	●/●	5 (50 µl)
Related Products			
Z-2028-5	ZytoLight FISH-Tissue Implementation Kit 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-2099-20	ZytoLight FISH-Cytology Implementation Kit 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. 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