

ZytoLight® SPEC PDGFRA/FIP1L1 TriCheck™ Probe



Background

The ZytoLight® SPEC PDGFRA/FIP1L1 TriCheck™ Probe (PL167) is intended to be used for the qualitative detection of rearrangements involving the human PDGFRA gene with and without participation of the human FIP1L1 gene in cytological specimens by fluorescence *in situ* hybridization (FISH). The probe is intended to be used in combination with the ZytoLight® FISH-Cytology Implementation Kit (Prod. No. 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 PDGFRA/FIP1L1 TriCheck™ Probe is composed of:

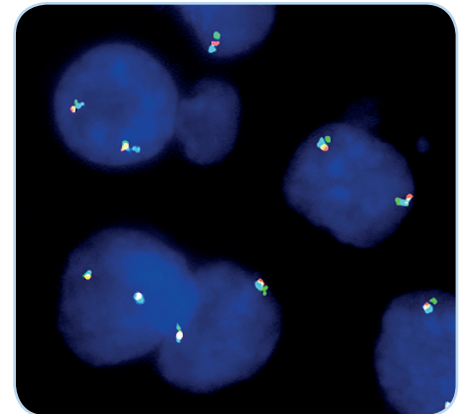
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10.0 ng/μl), which target sequences mapping in 4q12** (chr4:53,552,536-54,238,252) proximal to the FIP1L1 gene region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 4q12** (chr4:54,351,156-54,749,671) proximal to the PDGFRA gene region.
- ZyBlue (excitation 418 nm/emission 467 nm) labeled polynucleotides (~37.0 ng/μl), which target sequences mapping in 4q12** (chr4:55,185,968-55,915,442) distal to the PDGFRA gene region.
- Formamid based hybridization buffer

Results

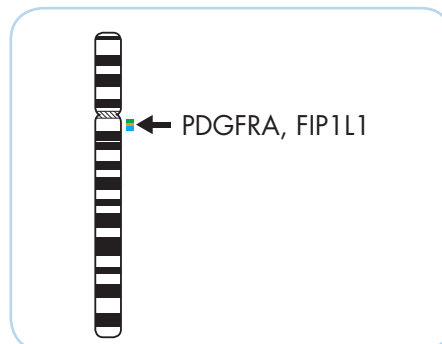
In an interphase nucleus lacking a deletion or translocation involving the 4q12 band, two tricolor orange/green/blue fusion signals are expected representing two normal 4q12 loci.

A PDGFRA-FIP1L1 fusion resulting from an interstitial DNA deletion is indicated by the loss of the orange signal leading to a separate green signal co-localizing with a blue signal.

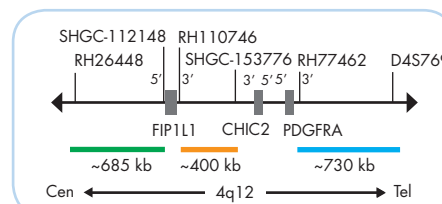
A PDGFRA translocation without involvement of FIP1L1 is indicated by one orange/green fusion signal and one separate blue signal.



SPEC PDGFRA/FIP1L1 TriCheck™ Probe hybridized to normal interphase cells as indicated by two tricolor orange/green/blue fusion signals per nucleus.



Ideogram of chromosome 4 indicating the hybridization locations.



SPEC PDGFRA/FIP1L1 Probe map (not to scale).

Prod. No.	Product	Label	Tests* (Volume)
Z-2209-50	ZytoLight SPEC PDGFRA/FIP1L1 TriCheck Probe		5 (50 μl)
Related Products			
Z-2099-20	ZytoLight FISH-Cytology Implementation Kit		20
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			

* 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