

ZytoLight® SPEC FOXO1/PAX3 Dual Color Single Fusion Probe



Background

The ZytoLight® SPEC FOXO1/PAX3 Dual Color Single Fusion Probe (PL16) is intended to be used for the qualitative detection of translocation t(2;13)(q36;q14.1) involving the human FOXO1 and PAX3 genes in formalin-fixed, paraffin-embedded specimens, such as alveolar rhabdomyosarcoma (ARMS), 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 ARMS and therapeutic measures should not be initiated based on the test result alone.

Probe Description

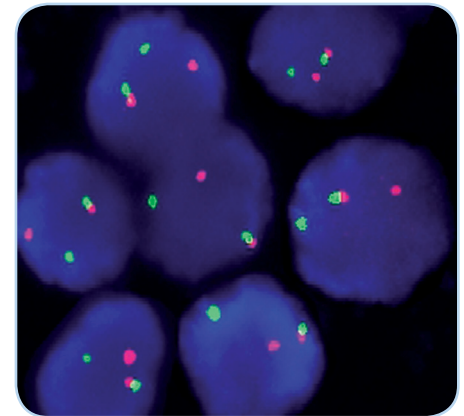
The ZytoLight® SPEC FOXO1/PAX3 Dual Color Single Fusion Probe is composed of:

- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 13q14.11** (chr13:40,816,168-41,132,595) proximal to the FOXO1 breakpoint region.
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 2q36.1** (chr2:223,196,078-223,539,352) distal to the PAX3 breakpoint region.
- Formamide based hybridization buffer

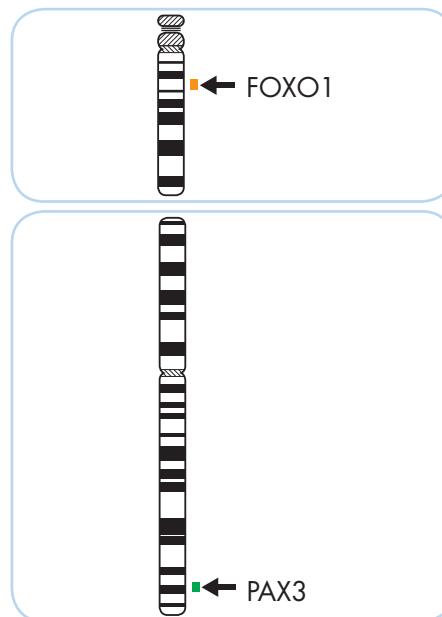
Results

In an interphase nucleus lacking the t(2;13), two orange and two green signals are expected.

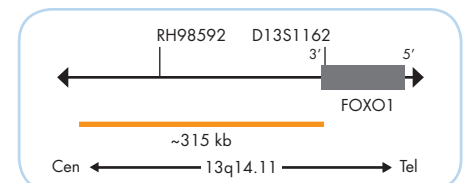
In a cell harboring the t(2;13), one orange signal, one green signal, and one orange/green fusion signal will be observed.



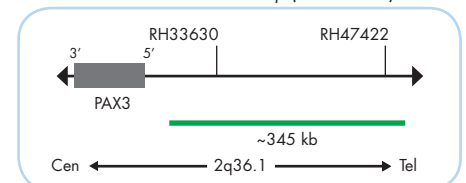
SPEC FOXO1/PAX3 Dual Color Single Fusion Probe hybridized to abnormal nuclei harboring a t(2;13)(q35;q14) as indicated by one orange, one green, and one orange/green fusion signal.



Ideograms of chromosomes 13 (above) and 2 (below) indicating the hybridization locations.



SPEC FOXO1 Probe map (not to scale).



SPEC PAX3 Probe map (not to scale).

Prod. No.	Product	Label	Tests* (Volume)
Z-2018-50	ZytoLight SPEC FOXO1/PAX3 Dual Color Single Fusion Probe CE IVD	●/●	5 (50 μl)
Z-2018-200	ZytoLight SPEC FOXO1/PAX3 Dual Color Single Fusion 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. 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