

ZytoLight® SPEC VHL/1p12/CEN 7/17 Quadruple Color Probe



Background

The ZytoLight® SPEC VHL/1p12/CEN 7/17 Quadruple Color Probe (PL60) is intended to be used for the qualitative detection of deletions involving the human VHL gene as well as chromosome 1p12 specific sequences, and chromosome 7 and 17 alpha satellites 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.

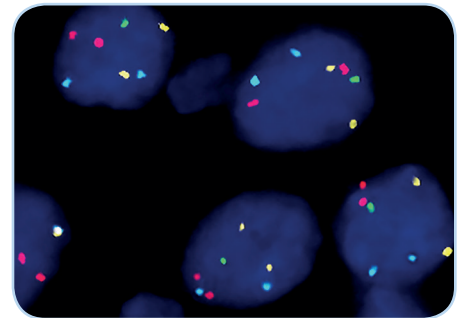
Probe Description

The ZytoLight® SPEC VHL/1p12/CEN 7/17 Quadruple Color Probe is composed of:

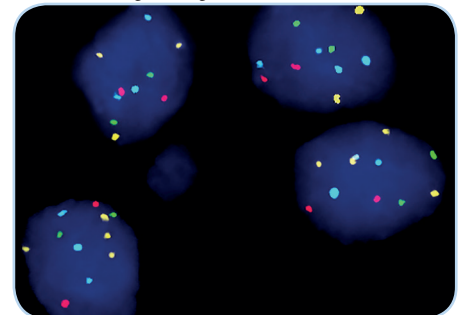
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 3p25.3** (chr3:10,051,220-10,598,496) harboring the VHL gene region.
- ZyRed (excitation 580 nm/emission 599 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 1p12** (chr1:119,537,102-119,823,147)
- ZyGold (excitation 532 nm and emission 553 nm) labeled polynucleotides (~7 ng/μl), which target sequences mapping in 7p11.1-q11.1 (D7Z1) specific for the alpha satellite centromeric region of chromosome 7.
- ZyBlue (excitation at 418 nm/emission 467 nm) labeled polynucleotides (~12 ng/μl), which target sequences mapping in 17p11.1-q11.1 (D17Z1) specific for the alpha satellite centromeric region of chromosome 17.
- Formamide based hybridization buffer

Results

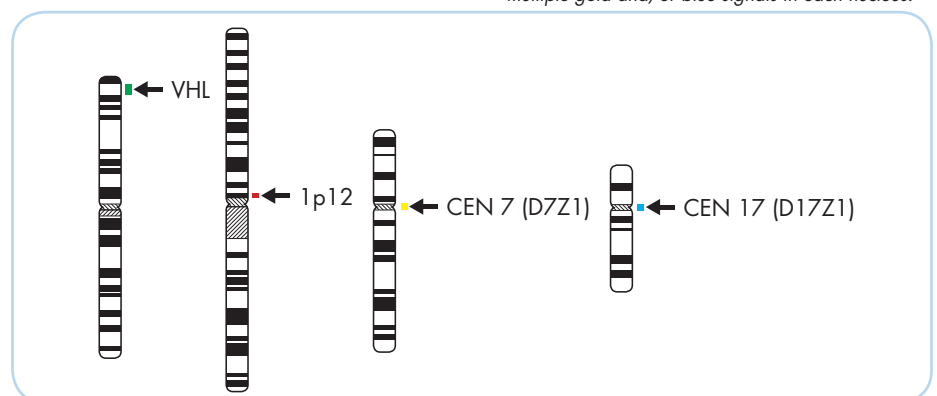
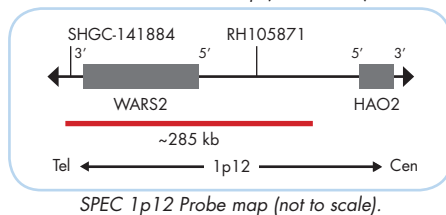
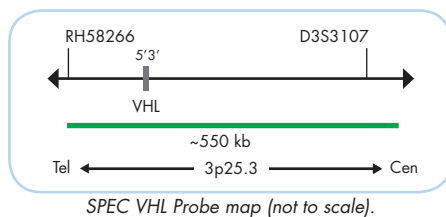
In a normal interphase nucleus, two green, two red, two gold, and two blue signals are expected. In a cell with deletion affecting the VHL gene, a reduced number of green signals will be observed. In cells with aneusomy of chromosome 1, 7, or 17, more or less signals of the respective color will be visible.



Example of an aberrant signal pattern: Renal cell carcinoma tissue section with deletion of the VHL gene as indicated by one green signal in each nucleus.



Example of an aberrant signal pattern: Renal cell carcinoma tissue section with polysomy of the chromosome 7 and 17 as indicated by multiple gold and/or blue signals in each nucleus.



Prod. No.	Product	Label	Tests* (Volume)
Z-2102-200	ZytoLight SPEC VHL/1p12/CEN 7/17 Quadruple Color Probe		20 (200 μl)
Related Products			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit		20
<small>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</small>			

* 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