

ZytoLight® SPEC CDK4/CEN 12 Dual Color Probe



Background

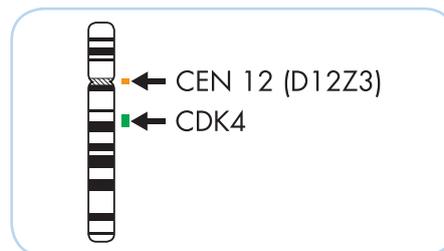
The ZytoLight® SPEC CDK4/CEN 12 Dual Color Probe (PL61) is intended to be used for the qualitative detection of amplifications involving the human CDK4 gene as well as the detection of chromosome 12 alpha satellites in formalin-fixed, paraffin-embedded specimens, such as atypical lipomatous tumor/well-differentiated liposarcoma (ALT/WDLPS) and dedifferentiated liposarcoma (DDLPS), 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 ALT/WDLPS and DDLPS and therapeutic measures should not be initiated based on the test result alone.

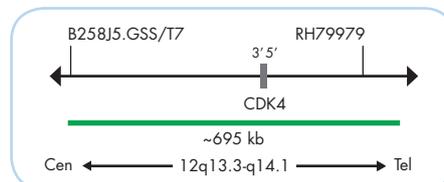
Probe Description

The ZytoLight® SPEC CDK4/CEN 12 Dual Color Probe is composed of:

- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 12q13.3-q14.1** (chr12:57,740,440-58,435,534) harboring the CDK4 gene region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~1.5 ng/μl), which target sequences mapping in 12p11.1-q11 specific for the alpha satellite centromeric region D12Z3 of chromosome 12.
- Formamide based hybridization buffer



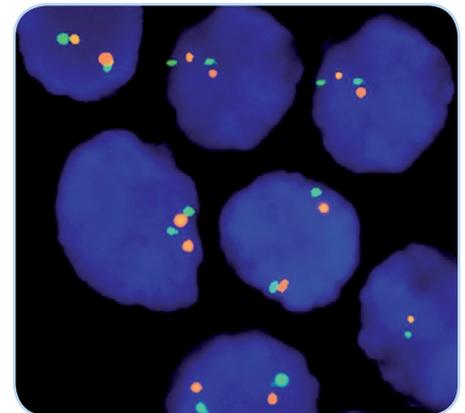
Ideogram of chromosome 12 indicating the hybridization locations.



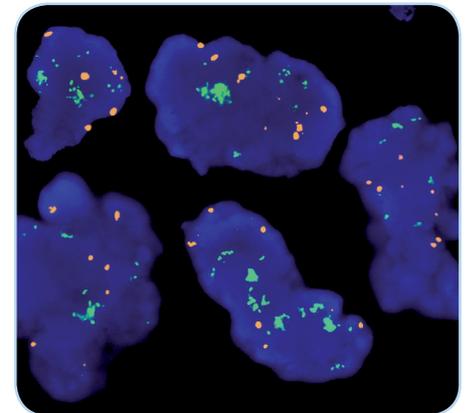
SPEC CDK4 Probe map (not to scale).

Results

In a normal interphase nucleus two orange and two green signals are expected. Nuclei with amplification of the CDK4 gene locus 12q13.3-q14.1, or polysomy of chromosome 12 will show multiple copies of the green signal or large green signal clusters.



SPEC CDK4/CEN 12 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.



Liposarcoma tissue section, CDK4 signal cluster (green), CEN 12 (orange).

Prod. No.	Product	Label	Tests* (Volume)
Z-2103-50	ZytoLight SPEC CDK4/CEN 12 Dual Color Probe	●/●	5 (50 μl)
Z-2103-200	ZytoLight SPEC CDK4/CEN 12 Dual Color Probe	●/●	20 (200 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-2028-20	ZytoLight FISH-Tissue Implementation Kit 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. 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