

# ZytoLight® SPEC MDM4/1p12 Dual Color Probe



## Background

The ZytoLight® SPEC MDM4/1p12 Dual Color Probe (PL39) is intended to be used for the qualitative detection of amplifications involving the human MDM4 gene as well as the detection of chromosome 1p12 specific sequences 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.

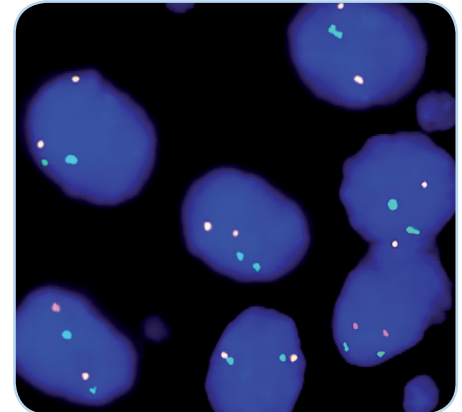
## Probe Description

The ZytoLight® SPEC MDM4/1p12 Dual Color Probe is composed of:

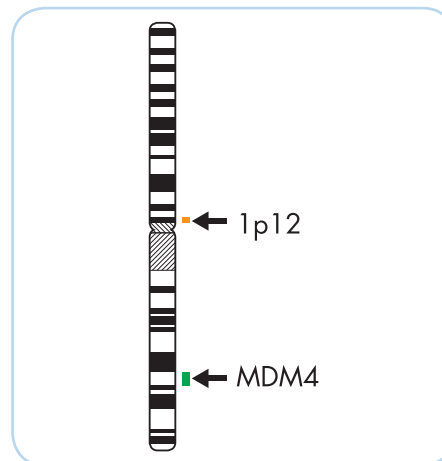
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 1q32.1\*\* (chr1:204,126,022-204,882,307) harboring the MDM4 gene region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 1p12\*\* (chr1:119,537,102-119,823,147).
- Formamide based hybridization buffer

## Results

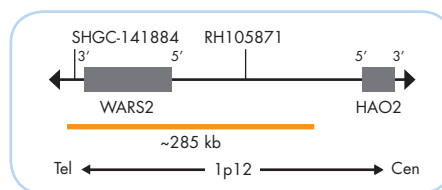
In a normal interphase nucleus two orange and two green signals are expected. Nuclei with amplification of the MDM4 gene locus or aneuploidy of chromosome 1 will show multiple copies of the green signal or large green signal clusters.



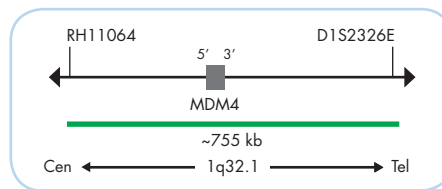
SPEC MDM4/1p12 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.



Ideogram of chromosome 1 indicating the hybridization locations.



SPEC 1p12 Probe map (not to scale).



SPEC MDM4 Probe map (not to scale).

Prod. No.	Product	Label	Tests* (Volume)
Z-2080-200	ZytoLight SPEC MDM4/1p12 Dual Color Probe		20 (200 μl)
<b>Related Products</b>			
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