

# ZytoLight® SPEC KRAS/CEN 12 Dual Color Probe



## Background

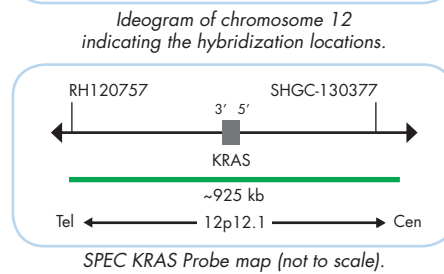
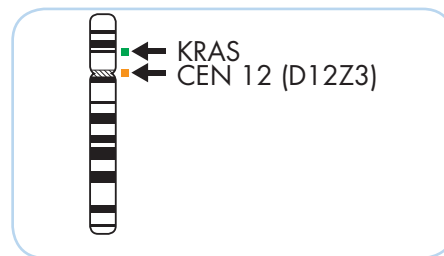
The ZytoLight® SPEC KRAS/CEN 12 Dual Color Probe (PL72) is intended to be used for the qualitative detection of amplifications involving the human KRAS gene as well as chromosome 12 alpha satellites in formalin-fixed, paraffin-embedded specimens by fluorescence *in situ* hybridization (FISH). The probe 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

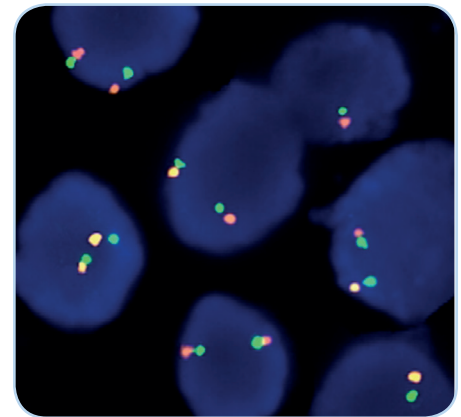
The ZytoLight® SPEC KRAS/CEN 12 Dual Color Probe is composed of:

- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 12p12.1\*\* (chr12:24,916,728-25,839,353) harboring the KRAS 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

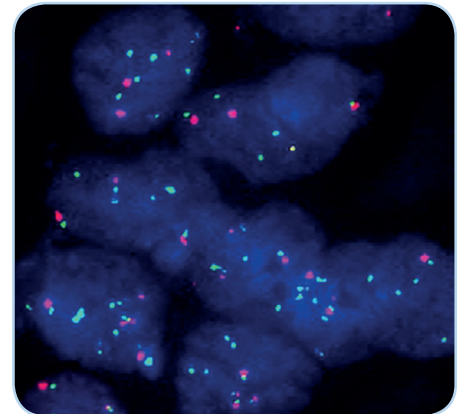


## Results

In a normal interphase nucleus, two orange and two green signals are expected. Nuclei with amplification of the KRAS gene locus 12p12.1 or aneuploidy of chromosome 12 will show multiple copies of the green signal or large green signal clusters.



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



Example of an aberrant signal pattern: Lung cancer tissue section with amplification of the KRAS gene (green).

Image kindly provided by Prof. Diebold, Lucerne, Switzerland.

Prod. No.	Product	Label	Tests* (Volume)
Z-2115-200	ZytoLight SPEC KRAS/CEN 12 Dual Color Probe CE IVD	●/●	20 (200 μl)
<b>Related Products</b>			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit CE IVD		20
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			

\* 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