

# ZytoLight® SPEC ROS1/CEN 6 Dual Color Probe



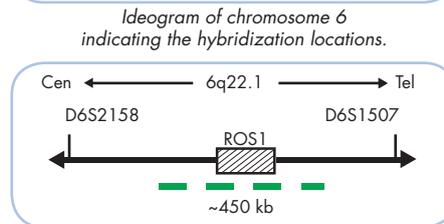
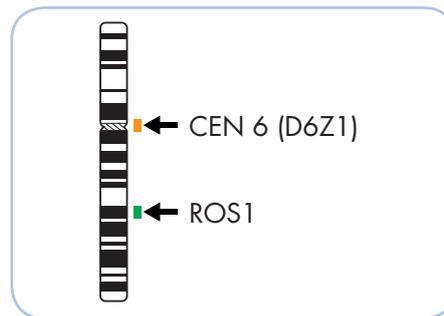
## Background

The ZytoLight® SPEC ROS1/CEN 6 Dual Color Probe is designed for the detection of amplifications of the chromosomal region harboring the ROS1 gene. The ROS1 (c-ros oncogene 1, a.k.a. MCF3) gene is located on 6q22.1 and encodes a receptor tyrosine kinase of the insulin receptor family. ROS1 has been found to undergo genetic rearrangements in a variety of human cancers including glioblastoma, cholangiocarcinoma, and non-small cell lung cancer (NSCLC). ROS1 rearrangements, detected in adenocarcinoma of the lung, are thought to define a molecular subset of NSCLC with distinct clinical characteristics that are similar to those observed in patients with ALK rearranged NSCLC. Targeting ROS1 fusion proteins with the kinase inhibitor crizotinib was shown to be a promising and effective therapy in NSCLC patients whose tumors are positive for this genetic aberration. Detection of ROS1 using Fluorescence *in situ* Hybridization might provide prognostic information in cancer patients positive for amplification of the ROS1 gene.

**References**  
 Bergelton K, et al. (2012) J Clin Oncol 30: 863-70.  
 Bos M, et al. (2013) Lung Cancer 81: 142-3.  
 Takeuchi K, et al. (2012) Nat Med 18: 378-81.

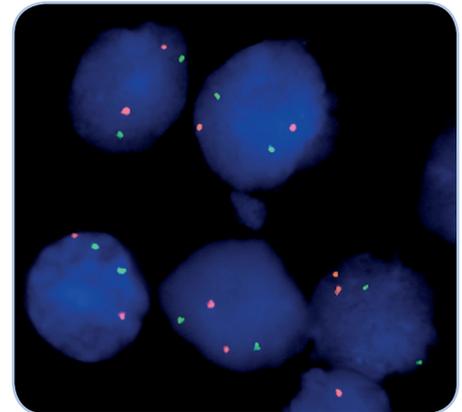
## Probe Description

The SPEC ROS1/CEN 6 Dual Color Probe is a mixture of an orange fluorochrome direct labeled CEN 6 probe specific for the alpha satellite centromeric region of chromosome 6 (D6Z1) and a green fluorochrome direct labeled SPEC ROS1 probe specific for the ROS1 gene at 6q22.1.

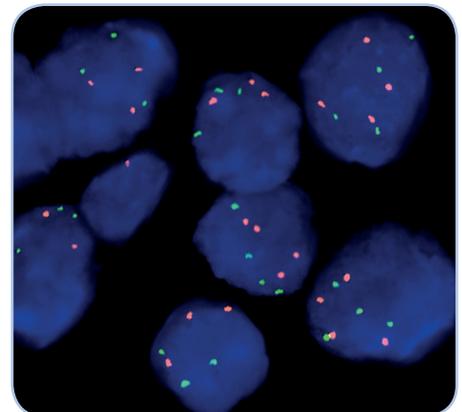


## Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with amplification of the ROS1 gene locus, multiple copies of the green signal or green signal clusters will be observed.



SPEC ROS1/CEN 6 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.



Lung cancer tissue section with interphase cells showing a polysomy of chromosome 6 as indicated by multiple orange (CEN 6) and green (ROS1) signals in each nucleus.

Prod. No.	Product	Label	Tests* (Volume)
Z-2162-200	ZytoLight SPEC ROS1/CEN 6 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, 500 ml; 25x Wash Buffer A, 100 ml; DAPI/Antifade-Solution, 0.8 ml			

\* Using 10 µl probe solution per test. CE IVD only available in certain countries. All other countries research use only! Please contact your local dealer for more information.

