

ZytoLight® SPEC SOX2/CEN 3 Dual Color Probe

RUO

Background

The ZytoLight® SPEC SOX2/CEN 3 Dual Color Probe (PL84) is intended to be used for the qualitative detection of human SOX2 gene amplifications as well as the detection of chromosome 3 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).

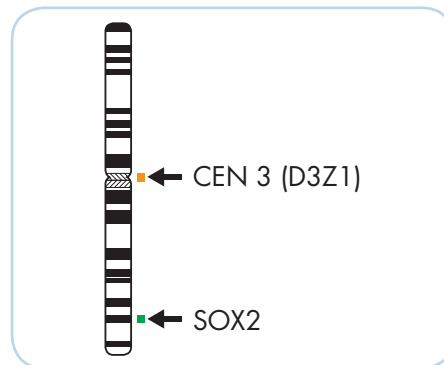
Probe Description

The ZytoLight® SPEC SOX2/CEN 3 Dual Color Probe is composed of:

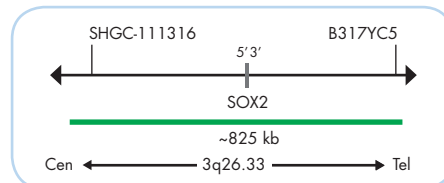
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/μl), which target sequences mapping in 3q26.33** (chr3:181,021,629-181,848,399) harboring the SOX2 gene region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~1.5 ng/μl), which target sequences mapping in 3p11.1-q11.1 specific for the alpha satellite centromeric region D3Z1 of chromosome 3.
- Formamide based hybridization buffer

Results

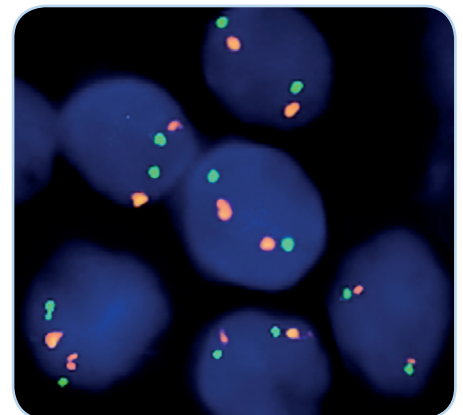
In a normal interphase nucleus, two orange and two green signals are expected. Nuclei with amplification of the SOX2 gene locus 3q26.33 or aneuploidy of chromosome 3 will show multiple copies of the green signal or large green signal clusters.



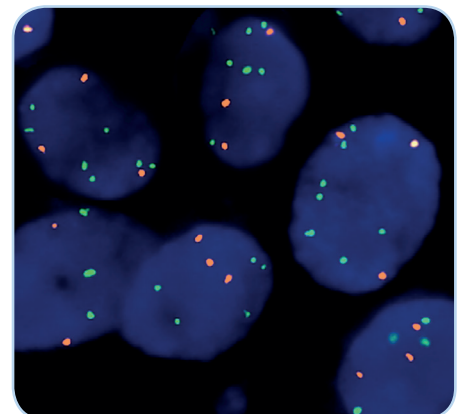
Ideogram of chromosome 3 indicating the hybridization locations.



SPEC SOX2 Probe map (not to scale).



SPEC SOX2/CEN 3 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 SOX2 gene (green) and trisomy of chromosome 3 (orange).

Prod. No.	Product
Z-2127-200	ZytoLight SPEC SOX2/CEN 3 Dual Color Probe RUO

Label	Tests* (Volume)
●/●	20 (200 μl)

* Using 10 μl probe solution per test. **According to Human Genome Assembly GRCh37/hg19
RUO For Research Use Only. Not for use in diagnostic procedures.