

ZytoLight® SPEC EGFR/CEN 7 Dual Color Probe

Background

The ZytoLight® SPEC EGFR/CEN 7 Dual Color Probe is designed for the detection of EGFR gene amplification frequently observed in solid neoplasms including non-small-cell lung cancer (NSCLC) and glioblastoma.

The EGFR gene (a.k.a. ERBB1 and HER1) is located in the chromosomal region 7p11.2 and encodes a transmembrane glycoprotein acting as a cellular growth factor receptor. The protein belongs to the EGFR (epidermal growth factor receptor) subgroup of the RTK (receptor tyrosine kinase) superfamily also including ERBB2 (ERBB2), ERBB3 (HER3), and ERBB4 (HER4).

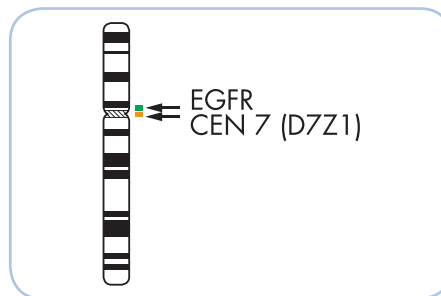
Overexpression of EGFR has been shown in a number of tumor entities and is associated with poor prognosis. EGFR copy number identified by FISH is thought to be a molecular predictor in neoplasms.

References

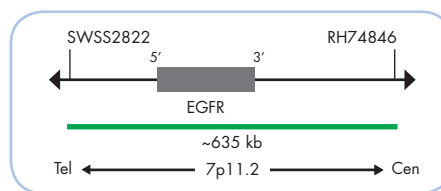
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Probe Description

The SPEC EGFR/CEN 7 Dual Color Probe is a mixture of an orange fluorochrome direct labeled CEN 7 probe specific for the alpha satellite centromeric region of chromosome 7 (D7Z1) and a green fluorochrome direct labeled SPEC EGFR probe specific for the EGFR gene at 7p11.2



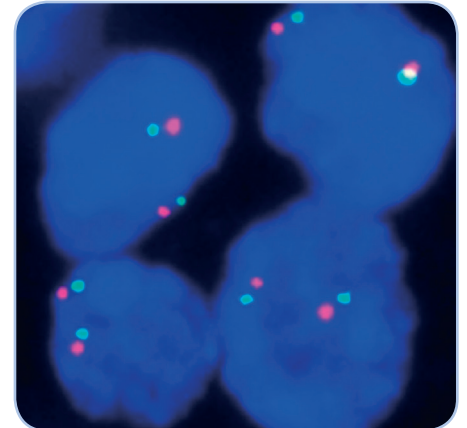
Ideogram of chromosome 7 indicating the hybridization locations.



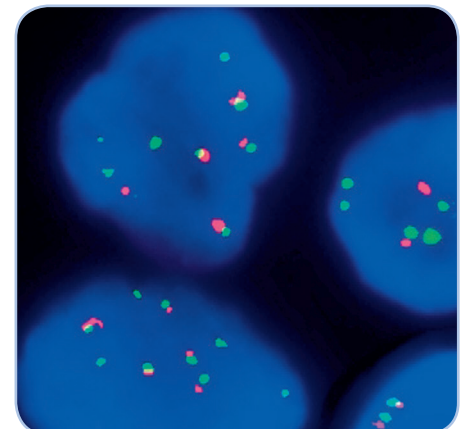
SPEC EGFR Probe map (not to scale).

Results

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



SPEC EGFR/CEN 7 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.



Cancer cells with multiple copies of chromosome 7 and extra EGFR signals (green) in sputum sample from an NSCLC patient.

Prod. No.	Product	Label	Tests* (Volume)
Z-2033-50	ZytoLight SPEC EGFR/CEN 7 Dual Color Probe CE IVD	●/●	5 (50 µl)
Z-2033-200	ZytoLight SPEC EGFR/CEN 7 Dual Color Probe CE IVD	●/●	20 (200 µl)
Related Products			
Z-2028-5	ZytoLight FISH-Tissue Implementation Kit CE IVD Incl. Heat Pretreatment Solution Citric, 150 ml; Pepsin Solution, 1 ml; Wash Buffer SSC, 150 ml; 25x Wash Buffer A, 50 ml; DAPI/DuraTect-Solution, 0.2 ml		5
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit CE IVD Incl. Heat Pretreatment Solution Citric, 500 ml; Pepsin Solution, 4 ml; Wash Buffer SSC, 500 ml; 25x Wash Buffer A, 100 ml; DAPI/DuraTect-Solution, 0.8 ml		20

* 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.