ZytoLight® SPEC ERBB3/CEN 12 Dual Color Probe

CE IVD

Background

The ZytoLight® SPEC ERBB3/CEN 12 Dual Color Probe is designed for the detection of amplifications of the chromosomal regions harboring the ERBB3 gene.
The ERBB3 (a.k.a. HER3) gene encodes a transmembrane glycoprotein acting as a cellular growth factor receptor. It belongs to the epidermal growth factor receptor subgroup of the receptor tyrosine kinase superfamily also including ERBB1 (EGFR), ERBB2, which is known to be affected by gene amplifications in a number of malignant tumors, and ERBB4.
Although EGFR and ERBB2 have been shown to represent good predictive markers and appropriate targets for therapeutic approaches, relatively less is known of comparable significance for ERBB3 and ERBB4. However, there is growing evidence that cooperation of all four members of the ERBB gene family contributes to a more aggressive tumor phenotype and influences therapeutic response.
Accordingly, it is assumed that the assessment of the combined amplification status of ERBB1 to ERBB4 may improve the diagnostic value significantly.

References
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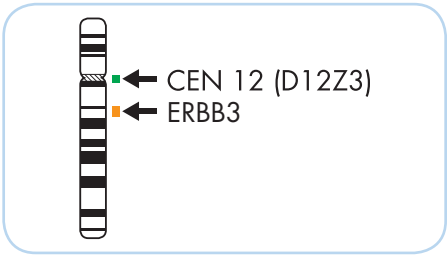
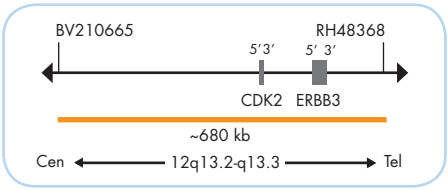
Probe Description

The SPEC ERBB3/CEN 12 Dual Color Probe is a mixture of a green fluorochrome direct labeled CEN 12 probe specific for the alpha satellite centromeric region of chromosome 12 (D12Z3) and an orange fluorochrome direct labeled SPEC ERBB3 probe hybridizing distal and proximal to the human ERBB3 gene in the chromosomal region 12q13.2-q13.3.



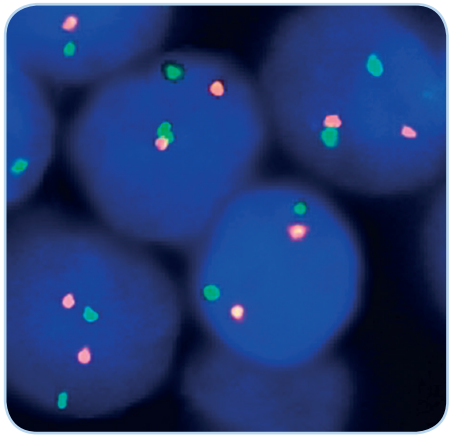
Ideogram of chromosome 12 indicating the hybridization locations.



SPEC ERBB3 Probe map (not to scale).

Results

Using the SPEC ERBB3/CEN 12 Dual Color Probe in a normal interphase nucleus, two orange and two green signals are expected. In a cell with amplification of the ERBB3 gene locus, multiple copies of the orange signal or orange signal clusters will be observed.



SPEC ERBB3/CEN 12 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus.

Prod. No.	Product	Label	Tests* (Volume)
Z-2056-200	ZytoLight SPEC ERBB3/CEN 12 Dual Color Probe CE IVD	●/●	20 (200 µl)
Related Products			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit CE IVD 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		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.*