ZytoDot ® SPEC MYC Probe

Previously: ZytoDot SPEC CMYC Probe

CE IVD

Background

The ZytoDot ® SPEC MYC Probe is designed for the detection of MYC gene amplification frequently observed in malignant tumors e.g. breast and endometrial cancer.

The proto-oncogene MYC (a.k.a. CMYC) is located in the chromosomal region 8q24.21 and encodes a nuclear transcription factor displaying high-affinity, site specific DNA-binding capacity when complexed with its cellular partners. Thus, the MYC protein is involved in proliferation, growth, differentiation, and apoptosis. Amplification of the chromosomal MYC gene region has been detected in many types of malignant neoplasms e.g. breast, lung, head, colon, kidney, neck, ovary, bladder, and endometrial cancers. It was shown that MYC amplification occurs in advanced, widespread tumors or in aggressive, primary tumors. In non-small cell lung cancer (NSCLC) and breast cancer, for example, MYC amplification was strongly associated with lymph node status. Accordingly, the MYC gene can be considered as a powerful prognostic marker.

Additionally, malignant cutaneous angiosarcomas but not benign and atypical vascular lesions occurring after radiotherapy of breast cancer are characterized by amplification of the MYC gene. The presence of MYC amplification is thus of considerable diagnostic importance for the distinction of malignant from atypical postradiation vascular neoplasms of the skin.

References
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Rummukainen JK, et al. (2001) Lab Invest 81: 1445-51.
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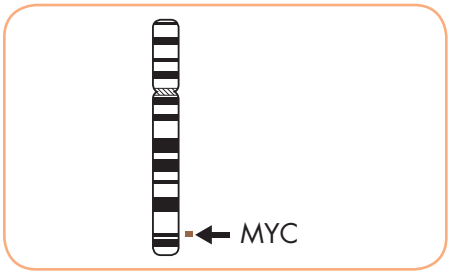
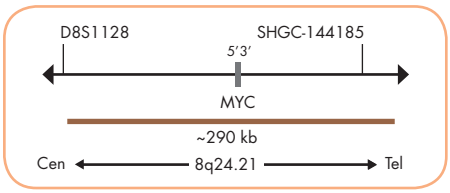
Probe Description

The ZytoDot ® SPEC MYC Probe is a Digoxigenin-labeled probe specific for the MYC gene region at 8q24.21, processed by the unique *ZytoVision® Repeat Subtraction Technique* resulting in advanced specificity and less background.



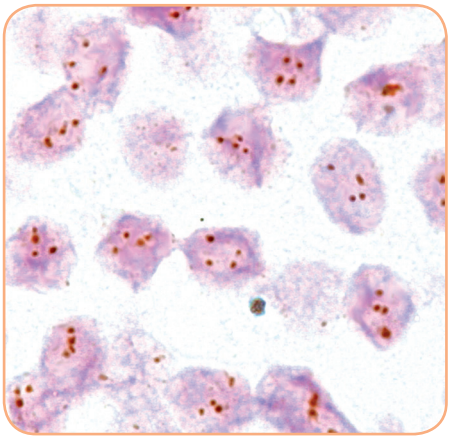
Ideogram of chromosome 8 indicating the hybridization locations.



SPEC MYC Probe map (not to scale).

Results

In normal cells, two distinct dot-shaped signals per nucleus will be observed. Nuclei with amplification of the MYC gene locus or polysomy of chromosome 8 will show multiple dots or large signal clusters.



Tetrasomy of chromosome 8 as indicated by four MYC signals per nucleus.

Prod. No.	Product	Label	Tests* (Volume)
C-3013-400	ZytoDot SPEC MYC Probe CE IVD	Digoxigenin	40 (400 µl)
Related Products			
C-3018-40	ZytoDot CISH Implementation Kit CE IVD Incl. Heat Pretreatment Solution EDTA, 500 ml; Pepsin Solution, 4 ml; Wash Buffer SSC, 500 ml; PBS/Tween, good for 2000 ml; Blocking Solution, 4 ml; Mouse-anti-DIG, 4 ml; Anti-Mouse-HRP-Polymer, 4 ml; DAB Solution A, 0.3 ml; DAB Solution B, 10 ml; Mayer's Hematoxylin Solution, 20 ml; Mounting Solution (alcoholic), 4 ml		40

** 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.*

ZytoVision GmbH · Fischkai 1
27572 Bremerhaven · Germany
www.zytovision.com
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