

Zyto Dot ® SPEC ERBB2 Probe

Previously: Zyto Dot SPEC HER2 Probe



Background

The ZytoDot® SPEC ERBB2 Probe is designed for the detection of ERBB2 gene amplification, frequently observed in solid malignant neoplasms, in formalin-fixed, paraffin-embedded tissue sections or cell samples.

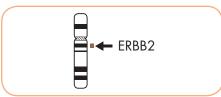
The ERBB2 gene (a.k.a. HER2 and NEU) is located in the chromosomal region 17q12 and encodes the cellular growth factor receptor p185.

Amplification of the proto-oncogene ERBB2, observed in approximately 20% of all breast cancer samples, has been correlated with a poor prognosis of the disease. Similar results have been obtained for a variety of other malignant neoplasms e.g. ovarian cancer, stomach cancer, and carcinomas of the salivary gland.

References
Baselga J, et al. (1999) Semin Oncol 26: 78-83.
Brockhoff G, et al. (2016) Histopathology 69: 635-46.
Brunello E, et al. (2012) Histopathology 60: 482-8.
Brunner K, et al. (2010) Anal Quant Cytol Histol 32: 78-89.
Coussens L, et al. (1985) Science 230: 1132-9.
Ettl T, et al. (2012) Br J Cancer 106: 719-26.
Hwang CC, et al. (2011) Histopathology 59: 984-92.
Hyans NE & Stern DE (1994) Biochim Bloobys Acta 1198-1 Hwang CC, et al. [2011] Histopathology 59: 984-92. Hynes NE & Stern DF (1994) Biochim Biophys Acta 1198: 165-84. Moelans CB, et al. (2011) Crit Rev Oncol Hematol 80: 380-92. Park IB, et al. (1989) Cancer Res 49: 6605-9. Popescu NC, et al. (1989) Genomics 4: 362-6. Sassen A, et al. (2008) Breast Cancer Res 10: R2. Slamon DJ, et al. (1987) Science 235: 177-82. Voutsas IF, et al. (2013) Int J Radiat Biol 89: 319-25. Wolff AC, et al. (2018) J Clin Oncol 14: 437-41.

Probe Description

The ZytoDot®SPEC ERBB2 Probe is a Digoxigenin-labeled probe specific for the ERBB2 gene at 17q12, processed by the unique ZytoVision® Repeat Subtraction Technique resulting in advanced specificity and less background.



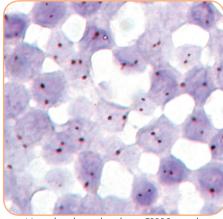
Ideogram of chromosome 17 indicating the hybridization locations.



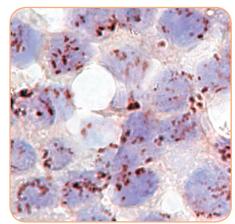
SPEC ERBB2 Probe map (not to scale).

Results

In normal cells, two distinct dot-shaped signals per nucleus will be observed. Nuclei with amplification of the ERBB2 gene locus or polysomy of chromosome 17 will show multiple dots or large signal clusters.



Normal nuclei each with two ERBB2 signals



Breast carcinoma tissue section with ERBB2 amplification.

| Prod. No. | Product | Label | Tests* (Volume) |
|------------|---|-------------|-----------------|
| C-3001-400 | Zyto Dot SPEC ERBB2 Probe C€ IVD | Digoxigenin | 40 (400 µl) |
| C-3003-40 | Zyto Dot SPEC ERBB2 Probe Kit C€ IVD | Digoxigenin | 40 |
| | Incl. Heat Pretreatment Solution EDTA, 500 ml; Pepsin Solution, 4 ml; Probe, 0.4 ml; Wash Buffer SSC, 560 ml; PBS/Tween, good for 2000 ml; Blocking Solution, 4 ml; Mouse-anti-D1G, 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 | | |

^{*} 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