

ZytoDot® 2C SPEC HER2/CEN 17 Probe

Background

The ZytoDot® 2C SPEC HER2/CEN 17 Probe is designed for the simultaneous detection of HER2 and centromere 17 in formalin-fixed, paraffin-embedded tissue sections or cell samples.

The HER2 gene (a.k.a. ERBB2 and NEU) is located in the chromosomal region 17q12 and encodes the cellular growth factor receptor p185. Amplification of the protooncogene HER2, observed in approximately 25-30% 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.

Probe Description

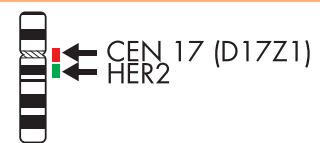
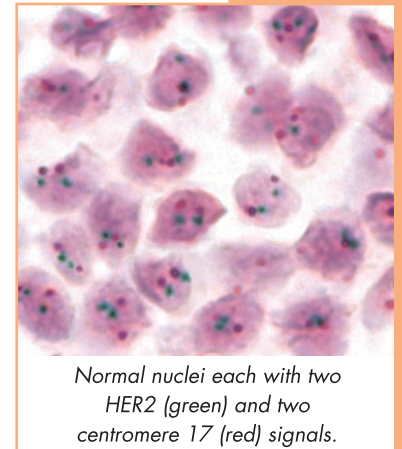
The ZytoDot® 2C SPEC HER2/CEN 17 Probe is a mixture of a Digoxigenin-labeled clone contig specific for the HER2 gene at 17q12 and a Dinitrophenyl-labeled CEN 17 probe specific for the alpha satellite centromeric region of chromosome 17 (D17Z1).

Results

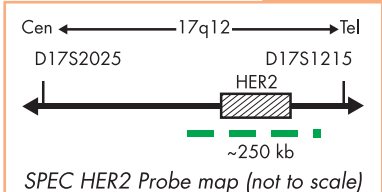
Using the ZytoDot® 2C SPEC HER2/CEN 17 Probe Kit, two green (HER2) and two red (CEN 17) signals are expected in a normal interphase nucleus. In a cell with amplification of the HER2 gene locus, multiple copies of the green signal or green signal clusters will be observed.

References

- Bhargava R, et al. (2005) *Am J Clin Pathol* **123**: 237-43.
- Coussens L, et al. (1985) *Science* **230**: 1132-9.
- Hauser-Kronberger C & Dandachi N (2004) *J Mol Histol* **35**: 647-53.
- Hopman AHN, et al. (1997) *Histochem Cell Biol* **108**: 291-8.
- Kounelis S, et al. (2005) *Anticancer Res* **25**: 939-46.
- Speel EJ, et al. (1994) *J Histochem Cytochem* **42**: 1299-307.



Ideogram of chromosome 17 indicating the hybridization locations.



Prod. No.	Product	Tests*
C-3022	ZytoDot 2C SPEC HER2/CEN 17 Probe Kit Incl. Pretreatment Solution, 500 ml; Pepsin Solution, 4 ml; Probe, 0.4 ml; Wash Buffer SSC, 500 ml; 20x Wash Buffer TBS, 2x 50 ml; Blocking Solution, 3 ml; Anti-DIG/Anti-DNP-Mix, 3 ml; HRP-Polymer-Mix, 3 ml; AP-Polymer-Mix, 3 ml; AP-Red Solution A, 0.3 ml; AP-Red Solution B, 0.3 ml; AP-Red Solution C, 2 ml; HRP-Green Solution A, 0.6 ml; HRP-Green Solution B, 10 ml; HRP-Green Solution C, 0.6 ml; Mayer's Hematoxylin Solution, 20 ml; Mounting Solution, 4 ml; Control Slides, 2 pcs.	20

* Using 15 µl probe solution per test.

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