

## Poseidon™ Repeat Free™ ERBB2, Her-2/Neu (17q12) & SE 17 Control probe

**Introduction:** The proto-oncogene *HER-2/neu* (*c-erbB-2*) resides on chromosome 17q and encodes a trans-membrane tyrosine kinase growth factor receptor. Amplification of the *HER-2/neu* gene, or overexpression of the *HER-2/neu* protein, is found in 20-30% of breast cancers and is also found to be amplified in prostate carcinoma, gastric cancer and uterus cancer. HER2 has been shown to predict response to specific breast cancer chemotherapeutic regimens, especially when combined with the humanized monoclonal antibody (MAb) Herceptin.

**Intended use:** The **Her2/neu (17q12)** specific DNA Probe is optimized to detect copy numbers of the *Her2/neu* (ERBB2) gene region at region 17q12. The Chromosome 17 Satellite enumeration (SE) probe is included to facilitate chromosome identification.

The probe is recommended to be used in combination with a Poseidon FISH Kit providing necessary reagents to perform FISH (KBI-60002, KBI-60003 or KBI-60001) for optimal results.

**Critical region 1 (red):** The **Her2/Neu (17q12)** specific DNA probe is direct-labeled with PlatinumBright550.

**Control region 2 (green):** The **SE 17** control DNA probe gene region is direct-labeled with PlatinumBright495.

**Reagent:** Poseidon probes are direct-labeled DNA probes provided in a ready-to-use format. Apply 10 µl of probe to a sample area of approximately 22 x 22 mm.

**Please refer to the Instructions for Use for the entire Poseidon FISH protocol.**

**Poseidon Repeat Free probes do not contain Cot-1 DNA. Hybridization efficiency is therefore increased and background, due to unspecific binding, is highly reduced.**

**Interpretation:** The **Her2/neu (17q12)** probe is designed as a dual-color assay to detect amplification at 17q12. Amplification involving the *Her2/neu* gene region at 17q12 will show several red signals, while the control at the chromosome 17 centromere region will provide 2 signals. Two single color red (R) and green (G) signals will identify the normal chromosomes 17 (2R2G).

	Normal Signal Pattern	Amp(17q12)
Expected Signals	2R2G	> 5R2G

**References:** Slamon D et al, 1988, Science, 240; 1795-1796  
Pauletti G et al, 1996, Oncogene, 13; 63-72

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## Application Manual

**KBI-10701**  
**ON ERBB2, Her-2/Neu (17q12) / SE 17, DC**

**IVD**  
for EU only





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