

## HER2 Green and Chromosome 17 Centromere Red DNA FISH Probe

70-0023ASR

0.1 mL, Ready-To-Use

### Intended Use

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

### Description

The probe is a double-stranded DNA probe cocktail containing HER2 probe, 401 kb in size, labeled with green fluorescence dye (excitation 496 nm and emission 520 nm similar to FITC), and chromosome 17 centromere probe labeled with red fluorescence dye (excitation 589 nm and emission 615 nm, similar to Texas Red). The probe cocktail detects human HER2 gene at chromosome 17q12 region and chromosome 17 alpha-satellites DNA D17Z1 in standard cytogenetic preparation, cytology preparation, or formalin-fixed paraffin embedded (FFPE) tissue section by fluorescence *in situ* hybridization (FISH) methodology.

The probe has been demonstrated to bind specifically to the chromosome 17 region 17q12 (Green) and centromere of chromosome 17 (Red) by FISH in normal lymphocytes cytogenetic metaphase preparation. This probe can detect multiple copies in human cancer cell lines which are known to have gain of chromosome 17.

HER2 (*c-erbB-2*) gene encodes a 185 kD receptor-like protein with kinase activity that shares homology with, but is distinct from, the EGF-receptor (*c-erbB-1*, HER1). HER2 gene amplification has been observed in human mammary and gastric cancer cell lines, breast cancers, and gastric cancers, and is correlated with overexpression of the HER2 protein.

### Reagent provided

This probe is supplied as liquid in hybridization buffer in ready-to-use format.

### Precautions

For professional users.

MSDS sheet may be obtained by either visiting [www.genemed.com](http://www.genemed.com) or obtained by contacting Genemed Technical Support.

### Usage

Each lot is tested by FISH in cytogenetic metaphase/interphase preparation of normal lymphocyte and formalin-fixed paraffin-embedded (FFPE) breast cancer tissue sections. In these tests, the metaphase/interphase slides are prepared according to standard cytogenetic preparation, the FFPE breast cancer tissue sections are pretreated with Genemed ISH Tissue Pretreatment Kit (10-0173), the probe and specimen are co-denatured for 5 minutes at 80°C for cytogenetic slides, or at 92°C for FFPE tissue sections, and hybridized at 37°C overnight. After, specimens undergo a stringent wash with 0.5X SSC at 72°C for 5 minutes (prepared from Genemed 10-0029RUO 20XSSC) and are coverslipped using DAPI antifade mounting media, the probe FISH signal in nucleus can be observed under a fluorescent microscope equipped with DAPI, FITC, and Texas Red Filter sets.

### Storage

Store at 2-8°C.

### References

1. King CR, et al. Science 229:974-976, 1985.
2. Slamon, DJ, et al. Science 235:177, 1987.
3. Ross JS, Fletcher JA. Am J Clin Pathol. 112:S53-67, 1999

### Symbols



Catalog No.



Batch No.



Use By



Temperature Range

31637 Rev.00

