



*ZytoLight*  
**SPEC HER3/CEN 12 Dual Color Probe**  
0.2 ml

For the detection of the chromosomal region of human **HER3 gene** and **alpha-satellites of chromosome 12** by fluorescence *in situ* hybridization (FISH)

FOR RESEARCH USE ONLY

Product No.: **Z-2056**

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Fluorescence labelled polynucleotide probe for the detection of the chromosomal region of human **HER3 gene** and **alpha-satellites of chromosome 12 centromeres**, ready to use

**Product description**

- Content:** 0.2 ml (20 reactions) **SPEC HER3/CEN 12 Dual Color Probe** in hybridization buffer. The probe contains **orange**-labelled polynucleotides (ZyOrange: excitation at 547 nm and emission at 572 nm - similar to Rhodamine), which target sequences adjacent to the **HER3 gene**, and **green**-labelled polynucleotides (ZyGreen: excitation at 503 nm and emission at 528 nm - similar to FITC), which target **alpha-satellite-sequences of the centromere of chromosome 12**.
- Product No.:** **Z-2056 (SPEC HER3/CEN 12 Dual Color Probe)**
- Specificity:** The **SPEC HER3/CEN 12 Dual Color Probe** is designed to be used for the detection of the chromosomal region of the human **HER3 gene** as well as **chromosome 12 alpha-satellites** in formalin-fixed, paraffin-embedded tissue or cells by *in situ* hybridization via FISH.
- Storage/Stability:** The **SPEC HER3/CEN 12 Dual Color Probe** must be stored at -20°C in the dark (short-time storage at 4°C is possible) and is stable through the expiry date printed on the label.
- Use:** This product is designed for research purposes only and not for use in diagnostic applications.
- Safety Precautions:** Read the operating instructions prior to use!  
Do not use the reagents after the expiry date has been reached!  
This product contains substances (in low concentrations and volumes) that are harmful to health (formamide, kathon). Avoid any direct contact with the reagents. Take appropriate

protective measures (use disposable gloves, protective glasses and lab garments). The following risk and safety phrases apply to: R61 May cause harm to the unborn child. S53 Avoid exposure - obtain special instructions before use. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label, where possible)!

If reagents come into contact with skin, rinse skin immediately with copious quantities of water!

A material safety data sheet is available on request for the professional user!

### Principle of the method:

The presence of certain nucleic acid sequences in cells or tissues can be detected via *in situ* hybridization, using tagged DNA probes. The hybridization results in duplex formation of specific sequences present in the test object with the tagged DNA probe.

Duplex formation (with sequences of the chromosomal region of [HER3](#) and [chromosome 12 alpha-satellites](#) in the test material) is directly detected by using the tags of fluoresce-labelled polynucleotides.

### Instructions:

Before use, vortex the [SPEC HER3/CEN 12 Dual Color Probe](#). Pre-treatment (dewaxing / proteolysis / post-fixation) should be carried according to the needs of the user. During the hybridization and wash steps, the test material must under no circumstances be allowed to dry out and the DNA probe should be kept out of bright light. For simultaneous denaturing of probe and target pipette 10  $\mu$ l of [SPEC HER3/CEN 12 Dual Color Probe](#) onto the test material (distribute dropwise on the whole target area to avoid local concentration of probe), cover with a cover slip (22 mm x 22 mm), and seal with rubber cement. After heat denaturing, for example on a hot plate for 10 mins at 75°C ( $\pm 2^\circ$ C), slides are incubated overnight at 37°C in a humidity chamber. Further processing, such as washing and counter-staining can be completed according to the users needs. For a particularly user-friendly performance we recommend the

use of ZytoVision's hybridization system ([Z-2028](#)), which due to its compatibility, makes the technique even easier.

**Our experts are available to answer your questions.**

#### **Literature**

Kraus MH et al. (1989) Proc Natl Acad Sci USA 86: 9193-7.

Alimandi M et al. (1995) Oncogene 10: 1813-21.

Way JS and Willard (1986) Nucleic Acids Res 14: 6915-27.

#### **Trademarks:**

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