

# In situ hybridization

## ERBB2/CEP17 ZytoPure® FISH Probe



## ZytoPure® FISH Probes

ZytoMed Systems is proud to offer the new product line **ZytoPure® FISH**, a reliable and accurate tool for the detection of genetic aberrations in FFPE tissue sections, cell samples and metaphase spreads by fluorescence *in situ* hybridization. **ZytoPure® FISH Probes** display brilliant signals, low background, and an excellent signal to noise

ratio. They are intended to be used in combination with the **ZytoPure® FISH Accessory Kit** comprising all reagents necessary for performing a FISH procedure on FFPE sections. The kit contains just 4 reagents and includes a robust and easy to follow protocol. All **ZytoPure® FISH Probes** as well as the **ZytoPure® FISH Accessory Kit** are CE/IVD-labelled.

### ► Background information: ERBB2/CEP17 ZytoPure® FISH Probe

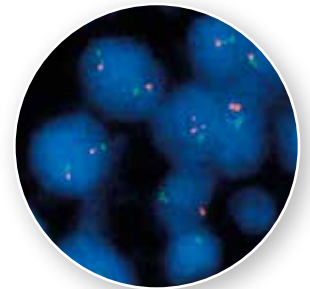
The **ERBB2/CEP17 ZytoPure® FISH Probe** simultaneously determines the status of the ERBB2 gene and the centromeric alpha satellite sequences of chromosome 17. Amplification of ERBB2 is quite common in breast cancer (appr. 15% – 20%) and in gastric cancer [1, 2], and has been known for many years as a driver mutation [3]. Therefore, determi-

nation of the ERBB2 status is obligatory in these tumor entities. ERBB2 codes for a growth factor receptor which can be blocked efficiently by monoclonal antibodies or small molecules. Application of these drugs in breast cancer patients is one of the earliest examples for a targeted tumor therapy based on the patient's mutational status [4].

### ► Product information

#### ERBB2/CEP17 ZytoPure® FISH Probe

Description	Labeling	CE/IVD	Volume	Cat. No.
ERBB2/CEP17 ZytoPure® FISH Probe	orange/green	✓	20 µl	F2C001-002
			100 µl	F2C001-010



ERBB2/CEP17 ZytoPure® FISH Probe, breast cancer specimen with no amplification showing one to two orange (ERBB2) and green (CEP17) signals



ERBB2/CEP17 ZytoPure® FISH Probe, breast cancer specimen with massive amplification of ERBB2 (orange); chromosome 17 (green) shows a normal copy number

### Ancillary Reagents

Description	CE/IVD	Volume	Cat. No.
<b>ZytoPure® FISH Accessory Kit</b> (Pepsin Solution, 4 ml; FISH Pretreatment Buffer, 500 ml; 20x FISH Wash Buffer, 2 x 50 ml; DAPI/Antifade Solution, 800 µl)	✓	1 Kit (20 tests)	FA-Kit1-20
<b>Pepsin Solution</b>	✓	4 ml	FA-001-004
<b>FISH Pretreatment Buffer (rtu)</b>	✓	500 ml	FA-002-500
<b>20x FISH Wash Buffer</b>	✓	50 ml	FA-003-050
<b>DAPI/Antifade Solution</b>	✓	800 µl	FA-004-008
<b>Fixogum (Rubber Cement)</b>	-	50 g	ZY-FX50
		125 g	ZY-FX125



Human metaphases hybridized with the ERBB2/CEP17 ZytoPure® FISH Probe

# In situ hybridization

ERBB2/CEP17 ZytoPure® FISH Probe



Other ZytoPure® FISH Probes

Description	Labeling	CE/IVD	Volume	Cat. No.
ALK Break Apart ZytoPure® FISH Probe	green/orange	✓	20 µl	F2C002-002
			100 µl	F2C002-010
ROS1 Break Apart ZytoPure® FISH Probe	orange/green	✓	20 µl	F2C003-002
			100 µl	F2C003-010
RET Break Apart ZytoPure® FISH Probe	orange/green	✓	20 µl	F2C004-002
			100 µl	F2C004-010
MET/CEP7 ZytoPure® FISH Probe	green/orange	✓	20 µl	F2C005-002
			100 µl	F2C005-010
MDM2/CEP12 ZytoPure® FISH Probe	green/orange	✓	20 µl	F2C006-002
			100 µl	F2C006-010
USP6 Break Apart ZytoPure® FISH Probe	green/orange	✓	20 µl	F2C007-002
			100 µl	F2C007-010
EWSR1 Break Apart ZytoPure® FISH Probe	orange/green	✓	20 µl	F2C008-002
			100 µl	F2C008-010
SS18 Break Apart ZytoPure® FISH Probe	orange/green	✓	20 µl	F2C009-002
			100 µl	F2C009-010
FUS Break Apart ZytoPure® FISH Probe	green/orange	✓	20 µl	F2C010-002
			100 µl	F2C010-010



ZytoPure® is a registered trade mark of Zytomed Systems GmbH, Berlin.

ZytoPure® Fluorochromes

Fluorochrome	Excitation	Emission
PureGreen	498 nm	532 nm
PureOrange	550 nm	576 nm

## Literature

- [1] Bilou M *et al.* Breast Cancer Res Treat 134:617-624, 2012
- [2] Rüschoff J *et al.* Mod Pathol 25:637-650, 2012
- [3] Slamon DJ *et al.* Science 235:177-182, 1987
- [4] Albanell J, Baselga J Drugs Today (Barc.) 35:931-946, 1999