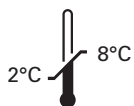


Kreatech™ FISH probes Product Information Sheet

KBI-10735

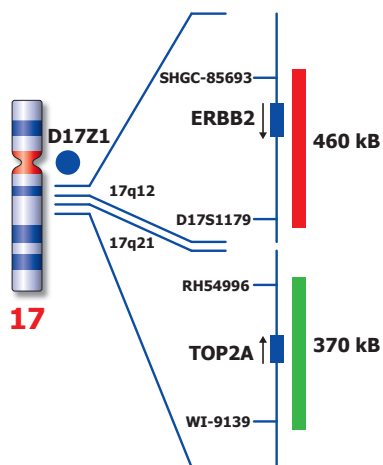
TOP2A (17q21) / ERBB2 (17q12) / SE 17,
Triple-Color



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Not to scale

Kreatech™ TOP2A (17q21) / ERBB2 (17q12) / SE 17, Triple-Color FISH probe

Introduction: Topoisomerase II alpha (TOP2A) is a key enzyme in DNA replication and a molecular target for many important anticancer drugs. TOP2A is amplified or deleted together with amplification of the closely located ERBB2 oncogene in breast cancer.

Intended use: The **TOP2A (17q21)** specific FISH probe is optimized to detect copy numbers of the TOP2A gene region at 17q21. The **ERBB2** (previously known as HER-2/neu) **(17q12)** specific FISH probe is optimized to detect copy numbers of the ERBB2 gene region at 17q12. The **Satellite Enumeration (SE) 17** FISH probe is included to facilitate chromosome identification.

The probe is recommended to be used in combination with one of the Kreatech Pretreatment kits providing necessary reagents to perform FISH on various sample types for optimal results. (see also www.LeicaBiosystems.com and look for Kits & reagents)

Critical region 1 (red): The **ERBB2 (17q12)** gene region probe is direct-labeled with PlatinumBright™550.
Critical region 2 (green): The **TOP2A (17q21)** gene region probe is direct-labeled with PlatinumBright™495.
Control region 3 (blue): The **SE 17** FISH probe is direct-labeled with PlatinumBright™415.

Reagent: Kreatech 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 Kreatech FISH protocol.

Kreatech FISH probes are REPEAT-FREE™ and therefore do not contain Cot-1 DNA. Hybridization efficiency is increased and background, due to unspecific binding, is highly reduced.

Interpretation: The **TOP2A (17q21) / ERBB2 (17q12) / SE 17, Triple-Color** FISH probe is designed as a triple-color assay to detect amplification at 17q12 and amplifications or deletions at 17q21. Amplifications involving the ERBB2 region at 17q12 will show several red signals, while the control at the chromosome SE 17 specific region will provide 2 blue signals. Amplifications involving the TOP2A gene region at 17q21 will show several green signals, with two red signals of the ERBB2 gene region and the control at the chromosome SE 17 specific region will provide 2 blue signals. Deletions involving the TOP2A gene region at 17q21 will show one green signal, with two red signals of the ERBB2 gene region and the chromosome SE 17 specific region will provide 2 blue signals. Two single color red, green and blue signals will identify the normal chromosomes 17 (2R2G2B).

	Normal Signal Pattern	TOP2A Amplification only	TOP2A Deletion only
Expected Signals	2R2G2B	2R3+G2B	2R1G2B
	ERBB2 Amplification only	ERBB2 & TOP2A Amplification	ERBB2 Amp, TOP2A Del
Expected Signals	3+R2G2B	3+R3+G2B	3+R1G2B

References: Järvinen et al, 1999, Genes Chrom Cancer 26; 142-150
 Järvinen et al, 2000, Am J Pathol, 156; 839-847

Warning and precautions: In case of emergencies check SDS sheets for medical advice. SDS sheets may be obtained by either contacting Leica Technical Support or visiting www.LeicaBiosystems.com. DNA probes contain formaldehyde which is a teratogen; do not inhale or allow skin contact. Wear gloves and a lab coat when handling DNA probes. All materials should be disposed of according to your institution's guidelines for hospital waste disposal.

Reagent Storage and Handling: Store at 2-8 °C. Reagents should not be used after the expiration date on the vial label.

TECHNICAL SUPPORT Technical support is available at www.LeicaBiosystems.com or +31 20 6919181 or via e-mail: kreatech-support@leicabiosystems.com.

CUSTOMER SERVICE Kreatech probes may be ordered through Leica Customer Service +31 20 6919181 or order via e-mail: purchase.orders@leica-microsystems.com.