

Kreatech™ FISH probes

Product Information Sheet

KBI-10114

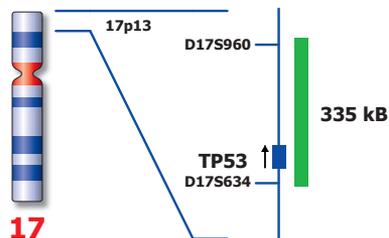
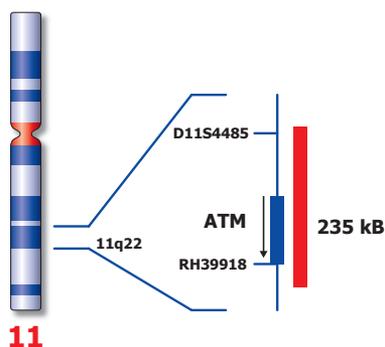
TP53 (17p13) / ATM (11q22)



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Not to scale

Kreatech™ TP53 (17p13) / ATM (11q22) FISH probe

Introduction: Alterations of the TP53 (17p13) gene occur not only as somatic mutations in human malignancies, but also as germline mutations in some cancer-prone families with Li-Fraumeni syndrome. Deletions of TP53 are frequent in CLL and MM, usually associated with unfavorable prognosis. Deletions of the long arm of chromosome 11 (11q) are one of the most frequent structural chromosome aberrations in various types of lymphoproliferative disorders. A critical genomic region located in bands 11q22.3-q23.1 has been identified and contains among other genes the ATM (ataxia telangiectasia mutated) gene.

Intended use: The **TP53 (17p13)** specific FISH probe is optimized to detect copy numbers of the TP53 gene region at 17p13. The **ATM (11q22)** specific FISH probe is optimized to detect copy numbers of the ATM gene region at 11q22.

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 **ATM (11q22)** specific FISH probe is direct-labeled with PlatinumBright™550.
Critical region 2 (green): The **TP53 (17p13)** specific FISH probe is direct-labeled with PlatinumBright™495.

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 **TP53 (17p13) / ATM (11q22)** FISH probe is designed as a dual-color assay to detect deletions at 17p13 and 11q22. Deletions involving the TP53 gene region will show one green signal and two red signals for the ATM region at 11q22 (2R1G). Deletions involving the ATM gene region at 11q22 will show one red signal and two green signals for the TP53 region at 17p13 (1R2G). Deletions involving both critical regions at 17p13 and 11q22 will show one red and one green signal only (1R1G). Two single color red (R) and green (G) signals will identify the normal chromosomes 17 and 11 (2R2G).

	Normal Signal Pattern	Del(11q22)	Del(17p13)	Del(11q22)(17p13)
Expected Signals	2R2G	1R2G	2R1G	1R1G

References: Boultonwood J, 2001, J. Clin. Pathol., 54; 512-516
 Amiel A et al, 1997, Cancer Genet.Cytogenet., 97; 97-100
 Drach J et al, 1998, Blood, 92; 802-809
 Döhner H et al, 1997, Blood, 7; 2516-2522

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 formamide 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.