

Kreatech™ FISH probes

Product Information Sheet

KBI-10716
FOXO1 (13q14) Break

IVD

DANGER



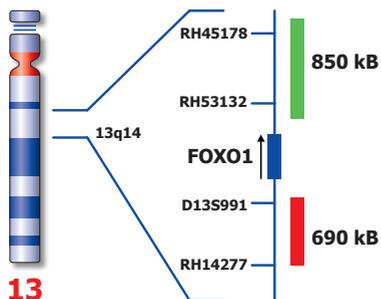
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Kreatech™ FOXO1 (13q14) Break FISH probe

Introduction: Identification of translocations t(2;13)(q35;q14) and t(1;13)(p36;q14), and the associated PAX3-FOXO1 and PAX7-FOXO1 fusion transcripts are a valuable diagnostic adjunct and important prognostic parameter in alveolar rhabdomyosarcoma. A break or split probe for FOXO1 is best used to analyze translocation of the FOXO1 gene on formalin fixed paraffin embedded tissue for routine clinical diagnosis. The PAX7-FOXO1 fusion is a consequence of gene amplification, therefore additional green signals for the der(13) become visible.

Intended use: The **FOXO1 (13q14) Break** FISH probe is optimized to detect translocations involving the FOXO1 (previously known as FKHR) gene region at 13q14 in a dual-color, split assay on FFPE tissue sections.

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 **distal FOXO1** gene region probe is direct-labeled with PlatinumBright™550.
Critical region 2 (green): The **proximal FOXO1** gene region 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 **FOXO1 (13q14) Break** FISH probe is designed as a dual-color split probe for translocations at 13q14. A break is defined when a red/green or yellow fusion signal (F) splits into separate red and green signals. Only red and green signals which are more than one signal diameter apart from each other are counted as a break. Co-localized red/green or yellow signals identify the normal chromosome(s) 13.

Signal patterns other than those described above may indicate variant translocations or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	13q14 Split
Expected Signals	2F	1F1R1G

References: Barr et al, 1996, Hum Mol Genet. 5; 15-21
 Nishio et al, 2006, Lab Invest. 86; 547-556

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.