

Kreatech™ FISH probes

Product Information Sheet

KBI-10707

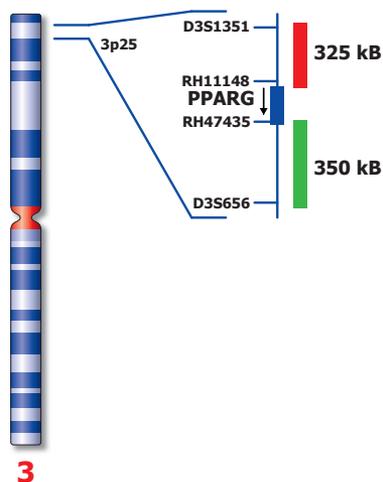
PPARG (3p25) Break



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Not to scale

Kreatech™ PPARG (3p25) Break FISH probe

Introduction: Chromosomal rearrangements at 3p25 have been reported in human tumors arising from thyroid follicular epithelial cells. Rearrangement of the peroxisome proliferator activated receptor gamma (PPARG) gene region (e.g. t(2;3) PAX8/PPARG) and amplification at 3p25 can arise independently in early follicular thyroid carcinomas. A dual-color break or split probe FISH assay for PPARG is best used to analyze translocation of the PPARG gene and to detect chromosome 3p25 aneusomie in routine clinical diagnosis.

Intended use: The **PPARG (3p25) Break** FISH probe is optimized to detect translocations and amplifications involving the PPARG gene region at 3p25 in a dual-color, split assay.

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 PPARG** gene region probe is direct-labeled with PlatinumBright™550.
Critical region 2 (green): The **proximal PPARG** 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 **PPARG (3p25) Break** FISH probe is designed as a dual-color split probe to detect translocations and amplifications at 3p25. 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. Amplifications involving the PPARG gene region at 3p25 will show 3 or more red-green fusion signals, while two co-localized red/green or yellow signals will identify the normal chromosome(s) 3.

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	3p25 Split	3p25 Amplification
Expected Signals	2F	1F1R1G	3 or more F

References: French et al, 2003, Am J Pathol, 162; 1053-1060.
 Drieschner et al, 2006, Thyroid, 16; 1091-1096.

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.