

Kreatech™ FISH probes

Product Information Sheet

KBI-10510

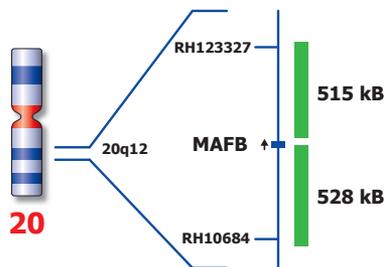
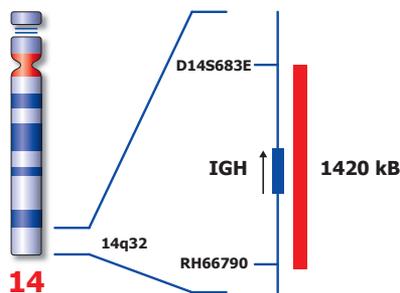
MAFB/IGH t(14;20) Fusion



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Not to scale

Kreatech™ MAFB/IGH t(14;20) Fusion FISH probe

Introduction: The immunoglobulin heavy chain (IGH) gene at 14q32 is an important cause of genetic deregulation in multiple myeloma (MM). Among the known fusion partners for the IGH gene, reciprocal translocation with the MAFB gene at 20q12 is relatively rare in MM (~2% occurrence). However, the MAFB/IGH t(14;20) translocation is associated with poor prognosis in multiple myeloma patients.

Intended use: The **MAFB/IGH t(14;20) Fusion** FISH probe is optimized to detect the reciprocal translocation t(14;20) in a dual-color, dual-fusion assay on metaphase/interphase spreads and bone marrow cells.

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 **IGH (14q32)** specific FISH probe is direct-labeled with PlatinumBright™ 550.
Critical region 2 (green): The **MAFB (20q12)** 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 **MAFB/IGH t(14;20) Fusion** FISH probe is designed as a dual-fusion probe to detect both rearranged chromosomes der(14) and der(20) by two co-localized red/green or yellow fusion signals (F). Single color red (R) and green (G) signals will identify the normal chromosomes 14 and 20 respectively.

Signal patterns other than those described above may indicate variant translocations, deletions on der(14) or der(20) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	t(14;20)
Expected Signals	2R2G	2F1R1G

References: Boersma-Vreugdenhil GR et al, 2004, Br J Haematol, 126, 355-363
 Bergsagel PL et al, 2005, JCO, 23, 6333-6338

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.