

Kreatech™ FISH probes

Product Information Sheet

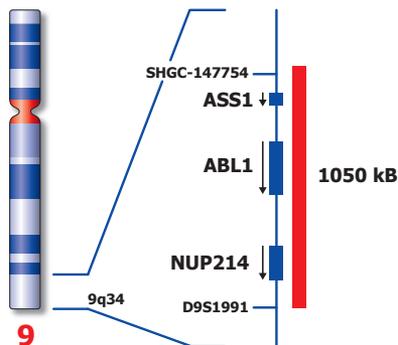
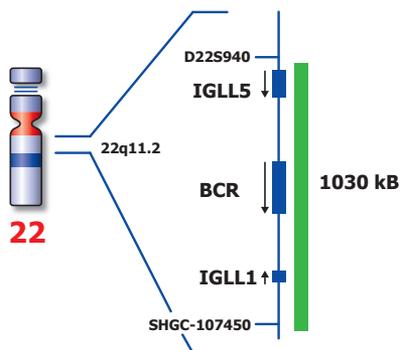
KBI-10005
BCR/ABL1 t(9;22) Fusion



Kreatech Biotechnology B.V.
Vierweg 20
1032 LG Amsterdam
The Netherlands
www.LeicaBiosystems.com

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Not to scale

Kreatech™ BCR/ABL1 t(9;22) Fusion FISH probe

Introduction: Chronic Myeloid Leukemia (CML) is characterized by the formation of the BCR/ABL1 fusion gene as a result of the reciprocal translocation t(9;22)(q34;q11). The BCR/ABL1 fusion gene is found on the derivative chromosome 22, called the Philadelphia (Ph) chromosome. The same translocation is also observed in Acute Lymphocytic Leukemia (ALL) and in Acute Myeloid Leukemia (AML).

Intended use: The **BCR/ABL1** FISH probe is optimized to detect the t(9;22)(q34;q11) reciprocal translocation in a dual-color (DC), dual-fusion (DF) assay on metaphase/interphase spreads, blood smears 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): Sequences flanking the **ABL1 (9q34)** gene are direct-labeled with PlatinumBright™550.

Critical region 2 (green): Sequences flanking the **BCR (22q11)** gene are 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 **BCR/ABL1 t(9;22) Fusion** FISH probe is designed as a dual-fusion probe to detect both rearranged chromosomes by two co-localized red/green (yellow) fusion signals (F). Single color red (R) and green (G) signals will identify the normal chromosomes 9 and 22. This FISH probe has been optimized to also detect a cryptic insertion of ABL1 in the BCR gene region or BCR into the ABL1 region. Insertion of ABL1 (9q34) into the BCR (22q11) region will be observed as one fusion-signal and an additional small remaining signal (r) at 9q34. Insertion of BCR (22q11) gene region into ABL1 (9q34) will be observed as one fusion-signal with an additional small remaining signal (g) at 22q11. Single color red (R) and green (G) signals will identify the normal chromosomes 9 and 22.

Signal patterns other than those described above may indicate variant translocations, deletions on der(9), der(22) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	t(9;22) BCR/ABL1	Ins(22;9)(q11;q34)	Ins(9;22)(q34;q11)
Expected Signals	2R2G	2F1R1G	1F1r1R1G	1F1g1R1G

References: Morris et al, 1990, Blood 76, 1812-1818
Kolomietz et al., 2001. Blood 97; 3581-3588
Huntly et al, 2003, Blood 102; 1160-1168

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.