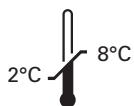


Kreatech™ FISH probes

Product Information Sheet

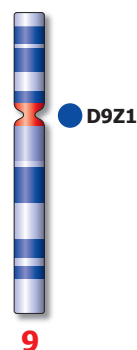
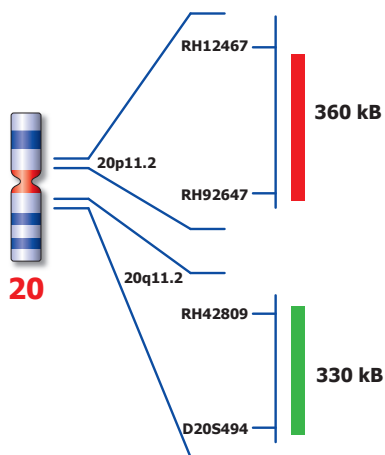
KBI-10405
dic(9;20) Triple-Color



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Not to scale

Kreatech™ dic(9;20) Triple-Color FISH probe

Introduction: The dic(9;20)(p13.2;q11.2) is a recurrent chromosomal abnormality in pediatric B-cell precursor acute lymphoblastic leukemia (BCP-ALL), which occurs in ~2% of the cases. It is associated with an intermediate outcome with relapses being relatively frequent, compared to other common cytogenetic subgroups of BCP-ALL (e.g. high hyperploidy and t(12;21)). The recent Nordic Society of Pediatric Hematology and Oncology (NOPHO) ALL treatment protocol dictates that the dic(9;20) aberration is to be excluded before assigning a patient to standard risk treatment. The dic(9;20) is an unbalanced rearrangement involving chromosomes 9 and 20, resulting in the co-localisation of the respective centromeres and concomitant loss of the chromosome arms 9p and 20q.

Intended use: The **dic(9;20)** Triple-Color FISH probe is optimized to detect the dicentric (9;20)(p13.2;q11.2) in a triple-color 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): The **20p11.2** specific FISH probe covering the region between marker RH12467 and RH92647 is direct-labeled with PlatinumBright™550.

Critical region 2 (green): The **20q11.2** specific FISH probe covering the region between marker RH42809 and D20S494 is direct-labeled with PlatinumBright™495.

Critical region 3 (blue): The **Satellite Enumeration (SE) 9** satellite FISH probe is direct-labeled with PlatinumBright™415.

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 **dic(9;20) Triple-Color** FISH probe is designed as a Triple-Color assay to detect the dic(9;20)(p13.2;q11.2). The dic(9;20) chromosome is observed as a colocalization of the red (R) signal of 20p11 and blue (B) signal of centromere 9. The green (G), red and blue signals identify the normal chromosome 20 and 9. A +20 BCP-ALL case will give in addition two red signals of the two normal chromosomes 20.

	Normal	dic(9;20)	dic(9;20) +20
Expected signals	2R2G2B	1RB1R1G1B	1RB2R2G1B

References: Forestier et al., Genes Chromosomes Cancer, 2008, 47: 149-158
 Pichler H et al., Br J Haematol, 2010, 149: 93-100
 Schmiegelow K et al. Leukemia 2010; 24: 345–54.
 Zachariadis V et al., Leukemia, 2011, 25: 22-628
 Zachariadis V et al. Br J Haematol, 2012, 159: 488–491.

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.