

Kreatech™ FISH probes

Product Information Sheet

KBI-10507

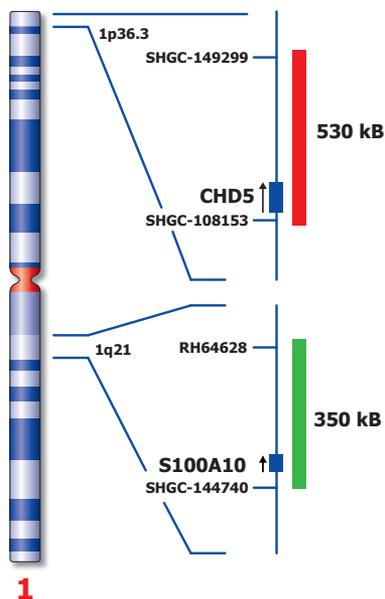
1q21 / SRD (1p36)



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Not to scale

Kreatech™ 1q21 / SRD (1p36) Specific FISH probe

Introduction: Segmental duplication of 1q12-21 and adjacent bands have been reported in Multiple Myeloma (MM). This aberration, together with others, is discussed to define a hyperdiploid subgroup in Multiple Myeloma patients. MM with gain of 1q was delineated as a subentity with significantly higher beta-2-microglobulin and lower hemoglobin levels, indicating a poor prognosis. Deletions affecting the short arm of chromosome 1 (1p) are among the most commonly observed chromosomal aberrations in malignancies and have been identified as adverse prognostic factor in subsets of tumors. A new smallest region of consistent deletion (SRD) has been identified in human neuroblastomas located between markers D1S2795 and D1S253*. One or more genes involved in neuroblastoma tumorigenesis or tumor progression are likely contained within this region.

Intended use: The **1q21** specific FISH probe is optimized to detect copy numbers at 1q21. The **SRD (1p36)** specific FISH probe is optimized to detect copy numbers of 1p at region 1p36.

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 **1p36** specific FISH probe is direct-labeled with PlatinumBright™550.
Control region 2 (green): The **1q21** specific control 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 **1q21 / SRD (1p36)** FISH probe is designed as a dual-color assay to detect duplication at 1q21. Amplification involving the 1q21 region will show three or more green signals and two red signals for the 1p36 region (2R3+G). Two single color red (R) and green (G) signals will identify the normal chromosome 1p and 1q regions (2R2G). Deletions involving the **1p36** region will show one red signal, while the 1q21 region at the chromosome 1q will provide 2 green signals (1R2G).

	Normal Signal Pattern	Amp(1q21)	Del(1p36)	Del(1q21)
Expected Signals	2R2G	2R3+G	1R2G	2R1G

References: Cremer F et al, 2005, Genes Chromosomes Cancer, 44; 194-203
 Van Roy N et al, 1997, Cancer Genet. Cytogenet., 97; 135-142
 Komuro H et al, 1998, J Pediatr.Surg., 33; 1695-1698

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.