

Cat Nr/REF: KBI-10507

English

For professional use only

Poseidon™ Repeat Free™ SRD (1p36) & 1q21 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 DNA Probe is optimized to detect copy numbers at 1q21. The **SRD 1p36** specific DNA Probe is optimized to detect copy numbers of 1p at region 1p36.

The probe is recommended to be used in combination with a Poseidon FISH Kit providing necessary reagents to perform FISH (KBI-60002, KBI-60003 or KBI-60001) for optimal results.

Critical region 1 (red): The SRD **1p36** specific DNA probe is direct-labeled with PlatinumBright550.

Critical region 2 (green): The **1q21** specific DNA probe is direct-labeled with PlatinumBright495.

Reagent: Poseidon 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 Poseidon FISH protocol.

Poseidon Repeat Free probes do not contain Cot-1 DNA. Hybridization efficiency is therefore increased and background, due to unspecific binding, is highly reduced.

Interpretation: The **1q21** probe is designed as a dual-color assay to detect duplication at 1q21. Amplification involving the 1q21 region will show three or more green signal 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).

The **SRD 1p36** probe is designed as a dual-color assay to detect deletions at 1p36. Deletions involving the **1p36** region will show one red signal, while the 1q21 region at the chromosome 1q will provide 2 signals (2R1G).

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

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

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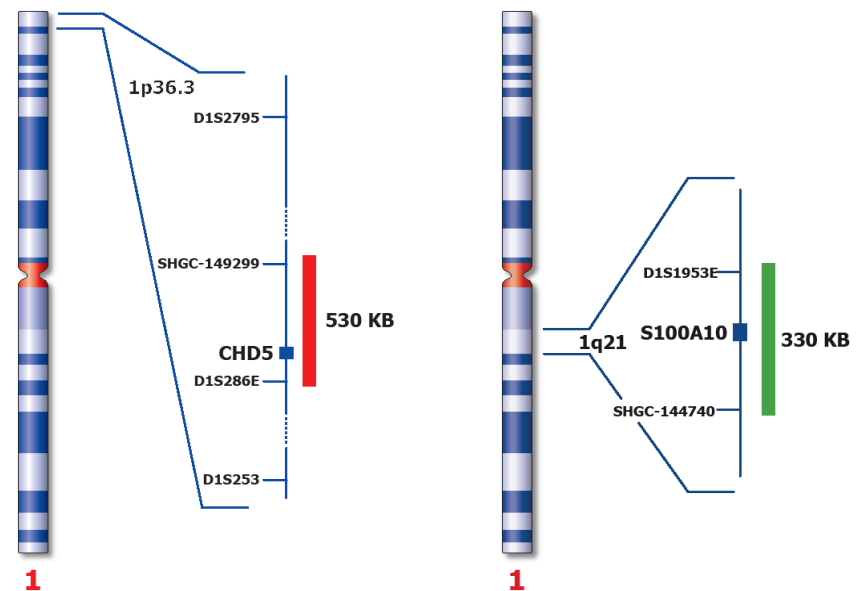
Application Manual

KBI-10507
ON 1q21 / SRD (1p36)



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Not to scale

Application manual