

Poseidon™ Repeat Free™ MM 1q21 & 8p21 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. Loss at 8p21 has been described in MM and may define a new subgroup in combination with the 1q21 amplification.

Intended use: The **1q21** specific DNA Probe is optimized to detect copy numbers at 1q21. The **8p21** specific DNA region is optimized to detect copy numbers at 8p21.

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 **8p21** 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 & 8p21 probe is designed as a dual-color assay to detect deletions or amplifications at 1q21 and 8p21. Deletions involving the 8p21 region will show one red signal and two green signals for the 1q21 region (1R2G). Amplification involving the 1q21 region will show three or more green signal and two red signals for the 8p21 region (2R3+G). Deletion and Amplification involving both critical regions at 1q21 and 8p21 will show one red and three or more green signals (1R3+G). Two single color red (R) and green (G) signals will identify the normal chromosomes 1 and 8 (2R2G).

| | Normal Signal Pattern | Del(8p21) | Amp(1q21) | Del (8p21)Amp(1q21) |
|------------------|-----------------------|-----------|-----------|---------------------|
| Expected Signals | 2R2G | 1R2G | 2R3+G | 1R3+G |

References: Cremer F et al, 2005, Genes Chromosomes Cancer, 44: 194-203

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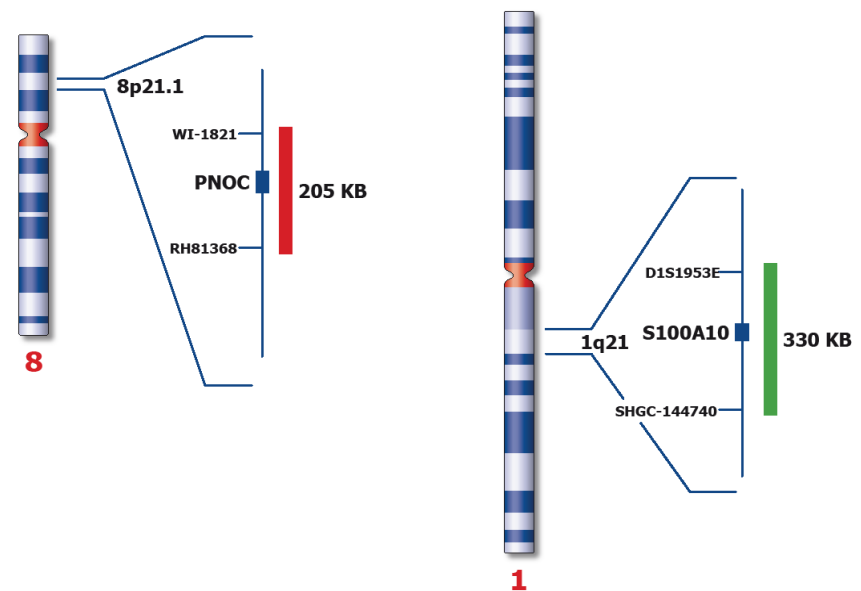
Application Manual

KBI-10503
ON MM 1q21 / 8p21



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Not to scale