

Poseidon™ Repeat Free™ p16 (9p21) & 9q21 Control probe

Introduction: Two genes, p16 (also known as CDKN2, INK4A, or MTS1) and p15 (also described as INK4B or MTS2), are found in tandem at chromosome 9p21. Molecular genetic studies have revealed that deletion of the p16 and p15 genes occurs frequently in bladder cancer and other solid tumors, but also in t-ALL and in about 15% of Non-Hodgkin Lymphomas.

Intended use: The **p16 (9p21)** specific DNA Probe is optimized to detect copy numbers of the p16 (INK4A) gene region at region 9p21.
The **9q21** specific region probe is included to facilitate chromosome identification.

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 **p16 (9p21)** specific DNA probe is direct-labeled with PlatinumBright550.

Control region 2 (green): The **9q21** control DNA probe gene region 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 **p16 (9p21)** probe is designed as a dual-color assay to detect deletions at 9p21. Deletions involving the p16 gene region at 9p21 will show one red signal, while the control at the chromosome 9q12 region will provide 2 signals in hemizygous deletions. No red signal, but 2 green signals for 9q12 will be visible in homozygous deletions of 9p21. Two single color red (R) and green (G) signals will identify the normal chromosomes 9 (2R2G).

	Normal Signal Pattern	Del(9p21)
Expected Signals	2R2G	0-1R2G

References: Dreyling et al, 1995, Blood, 86: 1931-1938.
Southgate et al, 1995, Br J Cancer, 72: 1214-1218.

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POSEIDON™
REPEAT-FREE™ FISH PROBES



Application Manual

KBI-10402

ON p16 (9p21) / 9q21



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