

Poseidon™ Repeat Free™ ATM (11q22) & GLI (12q13) Probe

Introduction: Deletions of the long arm of chromosome 11 (11q) are one of the most frequent structural chromosome aberrations in various types of lymphoproliferative disorders. A critical genomic region located in bands 11q22.3-q23.1 has been identified and contains among other genes the ATM (ataxia telangiectasia mutated) gene. Trisomy 12 is a frequent abnormality in chronic lymphocytic leukaemia (CLL). A minimal duplicated region has been identified at 12q13, including the GLI and CDK4 gene regions, which is amplified in additional 5% of CLL patients not showing Trisomy for the whole chromosome 12.

Intended use: The **ATM (11q22)** specific DNA Probe is optimized to detect copy numbers of the ATM gene region at 11q22. The **GLI (12q13)** specific DNA region is optimized to detect copy numbers of the GLI gene region at 12q13.

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 **ATM (11q22)** specific DNA probe is direct-labeled with PlatinumBright550.

Critical region 2 (green): The **GLI (12q13)** 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 ATM (11q22) & GLI (12q13) probe is designed as a dual-color assay to detect deletions at 11q22 and amplifications at 12q13. Deletions involving the ATM gene region will show one red signal and two green signals for the GLI region at 12q13 (1R2G). Amplification involving the GLI gene region will show three or more green signal and two red signals for the ATM region at 11q22 (2R3+G). Deletion and Amplification involving both critical regions at 11q22 and 12p13 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 11 and 12 (2R2G).

	Normal Signal Pattern	Del(11q22)	Amp (12q13)
Expected Signals	2R2G	1R2G	2R3+G

References: Döhner H et al, 1997, Blood, 7; 2516-2522
 Boultonwood J, 2001, J. Clin. Pathol., 54; 512-516
 Dierlamm J et al, 1998, Genes Chromosomes Cancer, 20; 155-166
 Döhner H et al, 1999, J. Molec. Med., 77; 266-281

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Application Manual

KBI-10108
 ON ATM (11q22) / GLI (12q13)



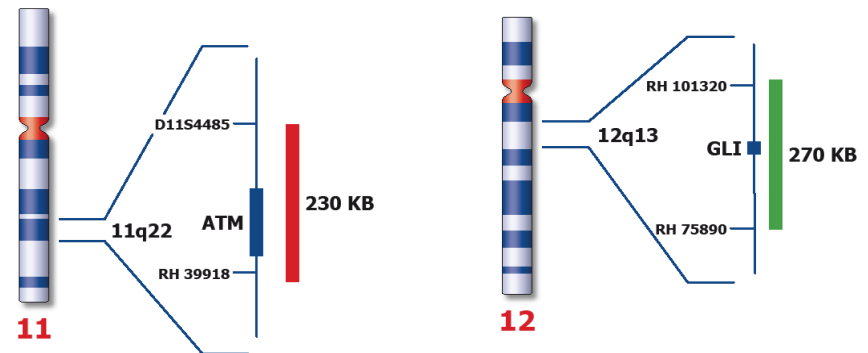
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Application manual