

Poseidon™ Repeat Free™ BCR/ABL t(9;22) Dual Color, Single-Fusion, Extra-Signal probe

Introduction: Chronic Myeloid Leukemia (CML) is characterized by the formation of the BCR/ABL fusion gene as a result of the reciprocal translocation t(9;22)(q34;q11). The BCR/ABL fusion gene is found on the derivative chromosome 22, called the Philadelphia (Ph) chromosome. The same translocation is also observed in Acute Lymphocytic Leukemia (ALL) and in Acute Myeloid Leukemia (AML). A submicroscopic gene deletion in Ph+ CML is associated with a poor prognosis and reduced response to treatment.

Intended use: The BCR/ABL probe is optimized to detect the t(9;22)(q34;q11) reciprocal translocation in a dual-colour, single-fusion, extra-signal assay on metaphase/interphase spreads, blood smears and bone marrow cells.

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): Sequences flanking the ABL (9q34) gene region are direct-labeled in red with PlatinumBright550.

Critical region 2 (green): Sequences flanking the proximal BCR (22q11) gene region are direct-labeled in blue 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 BCR/ABL probe is designed as dual-fusion probe to detect the Philadelphia chromosome by one co-localized red/green (yellow) fusion signals (F). A smaller extra red signal will identify the rearranged chromosome 9. Single color red (R) and green (G) signals will identify the normal chromosomes 9 and 22.

Signal patterns other than those described above may indicate variant translocations, deletions on der(9), der(22), double Ph chromosome or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	t(9;22) BCR/ABL
Expected Signals	2R2G	1F1r1R1G

References: Tkachuk et al., 1990, Science 250, 559 – 562
Dewald et al., 1998, Blood 91; 3357-3365
Kolomietz et al., 2001, Blood 97; 3581-3588
Huntly et al, 2003, Blood 102; 1160-1168

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POSEIDON™

REPEAT-FREE™ FISH PROBES

Application Manual

KBI-10008
ON BCR/ABL t(9;22), DC, S-Fusion, ES

IVD

for EU only

CE



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