Cat Nr/REF: KBI-10005

English

For professional use only

Poseidon™ Repeat Free™ BCR/ABL t(9;22) dual-colour translocation, dual-fusion 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, dual-fusion 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 is direct-labeled with Platinum*Bright*550.

Critical region 2 (green): Sequences flanking the **BCR (22q11)** gene is direct-labeled with Platinum*Bright*495.

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 both rearranged chromosomes by two co-localized red/green (yellow) fusion signals (F). Single color red (R) and green (G) signals will identify the normal chromosomes 9 and 22.
This probe has been optimized to also detect cryptic insertion of ABL in the BCR gene region or BCR into the ABL region. Insertion of ABL (9q34) into the BCR (22q11) region will be observed as one fusion-signal and an additional small remaining signal (r) at 9q34. Insertion of BCR (22q11) gene region into ABL (9q34) will be observed as one fusion-signal with an additional small remaining signal (g) at 22q11. 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	Ins(22;9)(q11;q34	Ins(9;22) (q34;q11)
Expected Signals	2R2G	2F1R1G	1F1r1R1G	1F1g1R1G

References:
Morris et al, 1990, Blood 76, 1812-1818
Dewald et al., 1998, Blood 91; 3357-3365
Kolomietz et al., 2001. Blood 97; 3581-3588
Huntly et al, 2003, Blood 102; 1160-1168
Tkachuk et al., 1990, Science 250, 559 –562

POSEIDON™
REPEAT-FREE™ FISH PROBES

Application Manual

KBI-10005
ON BCR/ABL t(9;22), Fusion

IVD
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CE

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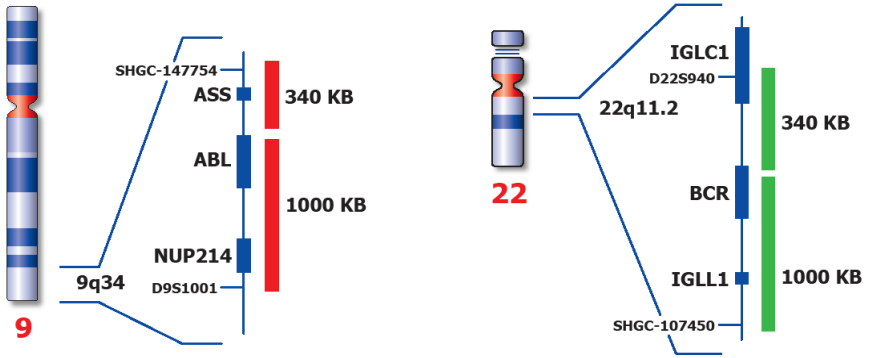

Not to scale

Application manual