Cat Nr/REF: KBI-10006

English

For professional use only

Poseidon™ Repeat Free™ BCR/ABL t(9;22) Triple Color & 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 triple-color, 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 region are direct-labeled in red with Platinum*Bright*550.

Critical region 2 (blue): The **proximal** sequences flanking the **BCR (22q11)** gene region are direct-labeled in blue with Platinum*Bright*415

Critical region 3 (green): The **distal** sequences flanking the **BCR (22q11)** gene region are direct-labeled in green 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), red/blue (purple) fusion signals (F). Deletion at the proximal 5' site of ABL (9q34) will lead to lack of a red signal and a single green signal for 3' distal sequences of the BCR gene region, deletions at the 3' site of the BCR (22q11) gene will lead to lack of a green signal. Single color red (R) and green/blue (GB) 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	t(9;22) del(distal 22q11)	t(9;22) del(proxi 9q34)
Expected Signals	2R2GB	1R1GB2F (=1RG and 1RB)	2R1GB1RB	1R1GB1G1RB

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-10006
ON BCR/ABL t(9;22), TC, D-Fusion

IVD
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CE

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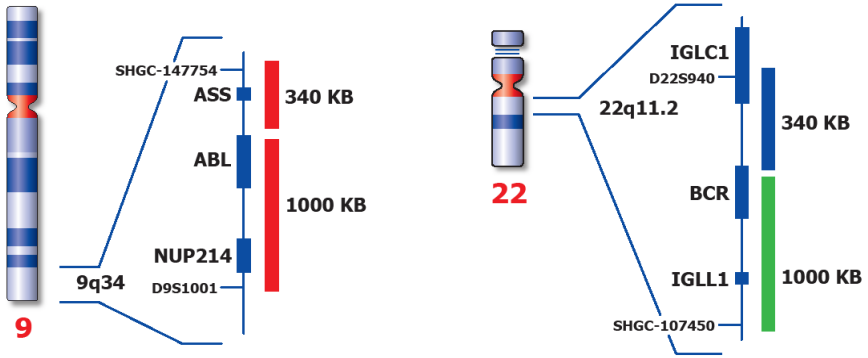

Not to scale

Application manual