

## Poseidon™ Repeat Free™ MYC (8q24) Break probe

Translocations involving chromosome 8 at band q24 and one of the Immunoglobulin (Ig) loci on chromosomes 14q32, 22q11, and 2p11 are the hallmark of Burkitt's lymphoma and diffuse large-B-cell lymphoma. The exact localization of the breakpoints at chromosome 8q24 can vary significantly from patient to patient, scattering over a distance of more than 1,000 kb.

The **MYC (8q24) Break** DNA probe is optimized to detect rearrangements involving the 8q24 locus in a triple-color, split 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 (green):** The proximal MYC (8q24) specific DNA probe is direct-labeled with PlatinumBright495.

**Critical region 2 (blue):** The MYC (8q24) specific DNA probe is direct-labeled with PlatinumBright415.

**Critical region 3 (red):** The distal MYC (8q24) specific DNA probe is direct-labeled with PlatinumBright550.

**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 MYC (8q24) probe is designed as a triple-color split probe to detect rearranged chromosomes 8. A split or break is defined when a green/red/blue or pink fusion signals (F) splits into separate red/blue and green/blue or green and red/blue or green/blue and red signals. Only signals which are more than one signal diameter apart from each other are counted as a break. Co-localized green/blue/red or pink signals identify the normal chromosome(s) 8.

Signal patterns other than those described above may indicate variant translocations, deletions or amplifications on der(8) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	8q24 Break	8q24 Proximal Break	8q24 Distal Break
Expected Signals	2F (GBR)	1F1GB1RB	1F1G1RB	1F1GB1R

**References:** Fabris et al., 2003, Genes Chromosomes Cancer 37 ; 261-269  
Hummel et al., 2006, N Engl J Med 354 ;2419-30.



## Application Manual

KBI-10611  
ON MYC (8q24) Break



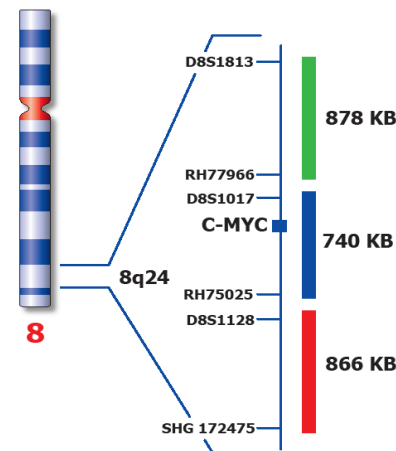
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Published Mar 2009

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Not to scale