

Poseidon™ Repeat Free™ EWSR1 (22q12) Break probe

Introduction: Ewing's sarcoma is the second most frequent primary bone cancer. In most cases a translocation involving the EWSR1 gene at 22q12 and the FLI1 gene at 11q24 are observed, but several other translocation partners (ERG, ETV1, FEV, and E1A3) can also be involved. A break or split probe for EWSR1 is best used to analyze translocation of the EWSR1 gene on formalin fixed paraffin embedded tissue for routine clinical diagnosis.

Intended use: The **EWSR1 (22q12) Break** Probe is optimized to detect translocations involving the EWSR1 gene region at 22q12 in a dual-color, split assay on metaphase/interphase spreads and paraffin embedded tissue sections.

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 proximal EWSR1 gene region probe is direct-labeled with PlatinumBright550.

Critical region 2 (green): The distal EWSR1 gene region 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 EWSR1 (22q12) Break probe is designed as a dual-color split probe to translocations at 22q12. A break is defined when a red/green or yellow fusion signals (F) splits into separate red and green signals. Only red and green signals which are more than one signal diameter apart from each other are counted as a break. Co-localized red/green or yellow signals identify the normal chromosome(s) 22.

Signal patterns other than those described above may indicate variant translocations or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	22q12 Split
Expected Signals	2F	1F1R1G

References: Zucman-Rossi, et al, 1998, PNAS, 95; 11786-11791.
Bernstein et al, 2006, Oncologist, 11; 503-519.

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Application Manual

KBI-10708
ON EWSR1 (22q12) Break

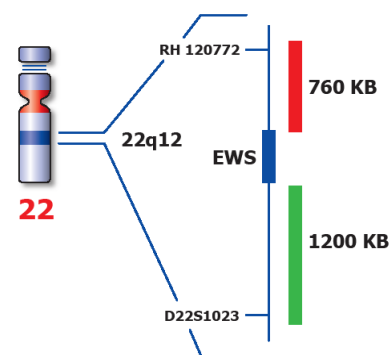


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Application manual