

## Poseidon™ Repeat Free™ Wolf-Hirschhorn WHSC1 (4p16) & SE 4 Control probe

**Introduction:** Wolf-Hirschhorn syndrome is a multiple malformation syndrome characterized by mental and developmental defects resulting from the absence of a segment of one chromosome 4 short arm (4p16.3). A minimal critical region has been limited to a 165 kb region defined by the loci D4S166 and D4S3327, but the deletion is described to extent more telomeric for the full Wolf-Hirschhorn phenotype<sup>1</sup>.

**Intended use:** The **Wolf-Hirschhorn** region probe is optimized to detect copy numbers of the Wolf-Hirschhorn critical region at 4p16. The Chromosome 4 Satellite Enumeration (SE) Probe is included to facilitate chromosome identification

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 **Wolf-Hirschhorn** specific DNA probe is direct-labeled with PlatinumBright550.

**Control region 2 (green):** The **SE 4** control DNA 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 **Wolf-Hirschhorn** probe is designed as a dual-color assay to detect deletions at 4p16. Deletions involving the Wolf-Hirschhorn region will show one red signal and two green signals at the chromosome 4 centromere control region (1R2G). Two single color red (R) and green (G) signals will identify the normal chromosomes 4 (2R2G)

	Normal Signal Pattern	Del 4(p16.3)
Expected Signals	2R2G	1R2G

**References:** Wright T et al, 1997, Hum Mol Genet; 6(2); 317-24  
 1Zollino et al, 2003Am J Hum Genet. March;72(3); 590-597

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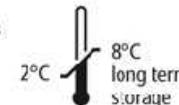
## Application Manual

KBI-40107

MD Wolf-Hirschhorn WHSC1 (4p16) / SE 4

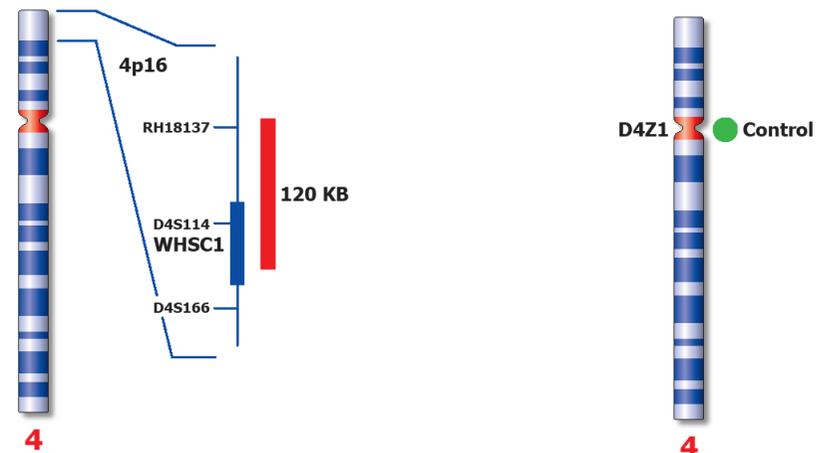


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Application manual