The Wnt gene family encodes secreted signaling molecules that bind to frizzled receptors and influence oncogenesis and developmental processes, including regulation of cell fate and patterning during embryogenesis. The Wnt family has two functional classes according to their biological activities: Wnts that signal through a Wnt-1/wingless pathway by stabilizing cytoplasmic β-catenin, and Wnts that stimulate intracellular Ca²⁺ release and activate two kinases, CamKII and PKC, in a G protein-dependent manner. Wnt-3 is present during development of the cerebellum and is restricted to the Purkinje cell layer in the adult. In motoneurons, Wnt-3 is a retrograde signal that controls terminal branching of muscle afferents. Human Wnt-3 is 98% homologous to mouse Wnt-3 protein and 84% homologous to human Wnt-3a protein. The human Wnt-3 gene clusters with the Wnt-15 gene at chromosome 17q21.31.

Genetic locus: WNT3 (human) mapping to 17q21.31, WNT3A (human) mapping to 1q42.13; Wnt3 (mouse) mapping to 11 E1, Wnt3a (mouse) mapping to 11 B3.1.

Wnt-3 (D-9) is recommended for detection of precursor and mature Wnt-3 and Wnt-3a of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Wnt-3 (D-9) is also recommended for detection of precursor and mature Wnt-3 and Wnt-3a in additional species, including bovine and porcine.

Molecular Weight (predicted) of Wnt-3: 39 kDa.

Molecular Weight (observed) of Wnt-3: 65 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, WEHI-231 whole cell lysate: sc-2213 or MDA-MB-231 cell lysate: sc-2232.

Storage
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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Research Use
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