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Recombinant Mouse Wnt-3a

Description: Wnt-3a belongs to the Wnt family of signaling proteins that play a key role in maintaining the integrity of embryonic and adult tissues. Expression of Wnt-3a occurs primarily along the dorsal midline across overlapping regions of the Central Nervous System (CNS). Wnt-3a signaling is essential for various morphogenetic events including embryonic patterning, cell determination, cell proliferation, CNS development, and cytoskeletal formation. Like other members of this family, Wnt-3a contains a highly conserved lipid modified cysteine rich domain that is essential for cell signaling. During a biochemical process called the canonical Wnt pathway; Wnt family members bind to and activate seven-pass transmembrane receptors of the Frizzled family ultimately leading to the disruption of β -Catenin degradation. Intracellular accumulation of β -Catenin increases translocation of the protein into the nucleus where it binds to TCF/LEF transcription factors to promote gene expression. Lack of Wnt signaling disrupts transcriptional activation of tumor suppressor genes and has shown to result in neoplastic transformation, oncogenesis, and human degenerative diseases. Recombinant murine Wnt-3a is a monomeric glycoprotein containing 328 amino acid residues. Due to glycosylation, the murine Wnt-3a migrates at an apparent molecular weight of approximately 38.0-41.0 kDa by SDS-PAGE analysis under non-reducing conditions.

Source:	cell culture
Molecular Weight:	38-41 kDa
Purity:	> 75% by SDS-PAGE and HPLC analysis
Endotoxin level:	< 0.1 ng per μ g of Wnt-3a
Stabilizer:	none
Formulation:	lyophilized

Biological Activity: The ED₅₀ was determined by its ability to induced alkaline phosphatase production by CCL-226 cells. The expected ED₅₀ for this effect is 0.4-0.6 ng/ml.

Stability: The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted Wnt-3a is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. **Avoid repeated freeze/thaw cycles.**

Usage: Mouse Wnt-3a is offered for research use. Not for drug use. **Not for human use.**

Catalogue number: M10-231

Size: 10 μ g

****Please note: always centrifuge product before opening vial!****