Frizzled-9 Protein, Mouse (HEK293, mFc)

Cat. No.:	HY-P79115
Synonyms:	Frizzled-9; Fzd9; Fz-9; mFz3; mFz9; CD349; Fzd3
Species:	Mouse
Source:	HEK293
Accession:	Q9R216 (L24-D186)
Gene ID:	14371
Molecular Weight:	52-61 kDa

PROPERTIES

AA Sequence	L E I G R F D P E R G R G P A P C Q A M E I P M C R G I G Y N L T R M P N L L G H T S Q G E A A A Q L A E F S P L V Q Y G C H S H L R F F L C S L Y A P M C T D Q V S T P I P A C R P M C E Q A R L R C A P I M E Q F N F G W P D S L D C A R L P T R N D P H A L C M E A P E N A T A G P T E P H K G L G M L P V A P R P A R P P G D
Biological Activity	Measured by its ability to bind biotinylated mouse Wnt-3a in a funtional ELISA with an estimated Kd 2.263 nM.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 500 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Frizzled-9, serving as the receptor for WNT2, is a crucial player in the beta-catenin canonical signaling pathway, orchestrating the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin, and subsequent activation of Wnt target genes. Beyond its role in canonical Wnt signaling, Frizzled-9 exhibits multifaceted functions. It contributes to neuromuscular junction (NMJ) assembly by negatively regulating the clustering of acetylcholine receptors (AChR) through the beta-catenin pathway. In neural progenitor cells (NPCs), Frizzled-9 influences cell viability by

negatively regulating cell cycle arrest, thereby inhibiting the apoptotic process. The receptor's involvement in hippocampal development includes the regulation of neuroblast proliferation and apoptotic cell death. Moreover, Frizzled-9 plays a pivotal role in bone dynamics, modulating bone formation through non-canonical Wnt signaling mediated via ISG15 and positively impacting bone regeneration through non-canonical Wnt signaling pathways.

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