

Frizzled-6 Protein, Human (HEK293, His)

Cat. No.:	HY-P74134
Synonyms:	Frizzled homolog 6 (Drosophila); Frizzled-6; fz-6; FZD6
Species:	Human
Source:	HEK293
Accession:	O60353-1/NP_003497.2 (H19-V153)
Gene ID:	8323
Molecular Weight:	Approximately 20-28 kDa due to the glycosylation

PROPERTIES

AA Sequence	<p> H S L F T C E P I T V P R C M K M A Y N M T F F P N L M G H Y D Q S I A A V E M E H F L P L A N L E C S P N I E T F L C K A F V P T C I E Q I H V V P P C R K L C E K V Y S D C K K L I D T F G I R W P E E L E C D R L Q Y C D E T V P V T F D P H T E F L G P Q K K T E Q V </p>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human Frizzled-6, at 0.1µg/mL (100 µL/well) can bind Wnt-5a. The ED ₅₀ for this effect is 125.3 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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-6, a receptor for Wnt proteins, is intricately involved in signaling pathways that predominantly converge on the beta-catenin canonical pathway. This cascade triggers the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin, and subsequent activation of Wnt target genes. While a secondary signaling pathway implicating PKC and calcium fluxes has been observed in some family members, its precise relationship with the canonical pathway remains unclear, and the requirement of PKC for Wnt-mediated inactivation of GSK-3 kinase adds complexity to
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this interplay. Interactions with G-proteins are integral to both pathways. Frizzled-6 is positioned to play a pivotal role in transducing polarity information during tissue morphogenesis and in differentiated tissues. Teaming up with FZD3, it contributes to neural tube closure and regulates the establishment of planar cell polarity, especially in orienting asymmetric bundles of stereocilia on the apical faces of select auditory and vestibular sensory cells within the inner ear. Its functional repertoire is further underscored by interactions with LMBR1L.

Caution: Product has not been fully validated for medical applications. For research use only.

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