Frizzled-5 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P74139
Synonyms:	C2orf31; Frizzled homolog 5 (Drosophila); Frizzled-5; FZ-5; FZD5
Species:	Human
Source:	HEK293
Accession:	Q13467 (A27-P167)
Gene ID:	7855
Molecular Weight:	Approximately 42.7 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS,pH7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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-5 Protein functions as a receptor for Wnt proteins, including WNT2, WNT10B, and WNT5A, although it does not activate WNT2B or WNT4 in vitro, and the in vivo context may vary due to potential differences in coexpression. In neurons, the activation of WNT7A by Frizzled-5 promotes synapse formation. It actively participates in the canonical Wnt/beta-catenin signaling pathway, leading to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin, and subsequent activation of Wnt target genes. Frizzled-5 may also engage a secondary signaling pathway involving PKC and calcium fluxes, the integration of which with the canonical pathway remains unclear, given PKC's apparent requirement for Wnt-mediated inactivation of GSK-3 kinase. This versatile receptor likely plays a role in transduction and intercellular transmission of polarity information during tissue morphogenesis and in differentiated tissues. Additionally, Frizzled-5 is implicated in yolk sac angiogenesis and placental vascularization, and its homodimerization is promoted by the binding of unsaturated fatty acid molecules via the FZ domain. Notably, Frizzled-5 interacts with WNT2B, WNT7A, and GOPC, contributing to its diverse range of cellular functions.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA