

## DKK-1 C terminal Domain Protein, Human (HEK293, Fc-Avi)

Cat. No.:	HY-P700704
Synonyms:	Dickkopf-related 1; Dickkopf-1; Dkk-1; Dkk1; hDkk-1; hDkk1; SK
Species:	Human
Source:	HEK293
Accession:	O94907 (M178-H266)
Gene ID:	22943
Molecular Weight:	45-55 kDa

### PROPERTIES

Biological Activity	Immobilized Anti-DKK1 Antibody at 1µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human DKK1 C terminal Domain, hFc Tag with the EC <sub>50</sub> of 10.4ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of 20mM NaAc,150mM NaCl, pH 5.0. Normally 8% trehalose is added as protectant before lyophilization.
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 20mM NaAc,150mM NaCl, pH 5.0.
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	DKK1 protein functions as a potent antagonist of canonical Wnt signaling through multiple mechanisms. It inhibits the interaction between LRP5/6 and Wnt and forms a ternary complex with the transmembrane protein KREMEN, facilitating the internalization of LRP5/6. Notably, DKK1 not only antagonizes the pro-apoptotic function of KREMEN1 in a Wnt-independent manner but also exhibits anti-apoptotic activity. The protein is implicated in limb development, where it modulates Wnt signaling to ensure normal limb patterning. Through its C-terminal Cys-rich domain, DKK1 interacts with LRP5 and LRP6, specifically engaging with beta-propeller regions 3 and 4 of LRP5. This interaction is further influenced by MESD and/or KREMEN, collectively leading to the attenuation of Wnt-mediated signaling. Additionally, DKK1 forms a ternary complex with LRP6 and KREM1, highlighting its multifaceted role in regulating crucial cellular processes and interactions with key proteins involved in Wnt signaling.
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**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](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA