

DKK1 Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78430
Synonyms:	Dickkopf-1; Dkk1; SK
Species:	Human
Source:	HEK293
Accession:	O94907 (T32-H266)
Gene ID:	22943
Molecular Weight:	45-55 kDa

PROPERTIES

Biological Activity	<ol style="list-style-type: none"> 1. Immobilized Human DKK1, His Tag at 0.2µg/ml (100µl/Well) on the plate. Dose response curve for Anti-DKK1 Antibody, hFc Tag with the EC₅₀ of 7.4ng/ml determined by ELISA. 2. Immobilized Human DKK1, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human LRP-5, mFc Tag with the EC₅₀ of 0.11µg/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% 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 ddH ₂ O.
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	<p>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.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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