

## Product Data Sheet

## DKK-1 N terminal Protein, Human (Biotinylated, HEK293, Fc-Avi)

| Cat. No.:         | HY-P700885   |
|-------------------|--|
| Synonyms:         | Dickkopf-related 1; Dickkopf-1; Dkk-1; Dkk1; hDkk-1; hDkk1; SK |
| Species:          | Human  |
| Source:           | HEK293   |
| Accession:        | O94907 (T32-D142)  |
| Gene ID:          | 22943  |
| Molecular Weight: | 50-60 kDa  |

| PROPERTIES          |  |
|---------------------|--|
| FROFERTIES          |  |
| Appearance          | Lyophilized powder.  |
| Formulation         | Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before<br>lyophilization.  |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.  |
| Reconsititution     | It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ 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** 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.

## 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