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DKK-1

Catalog # PVGS1506

Product Information

Primary Accession	O54908
Species	Mouse
Sequence	Ser30-His272
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	CHO
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	13380
Other Names	Dickkopf-related protein 1, Dickkopf-1, Dkk-1, mDkk-1, Dkk1
Target Background	Dickkopf related protein 1 (DKK-1) is a chemokine that belongs to the DKK protein family, which also includes DKK-2, DKK-3 and DKK-4. DKK-1 was originally identified as a Xenopus head forming molecule that behaves as an antagonist for Wnt signaling. It is one of the most up-regulated genes during androgen-potentiated balding, with DKK-1 messenger RNA up-regulated a few hours after DHT treatment of hair follicles at the dermal papilla in vitro. Neutralizing bodies against DKK-1 reverses DHT effects on outer root sheath keratinocytes. DKK-1 expression is attenuated by L-threonate, a metabolite of ascorbate in vitro. DKK-1 promotes LRP6 internalization and degradation as it forms a ternary complex with the cell surface receptor Kremen. DKK-1 not only functions in head formation during development, but also regulates joint remodeling and bone formation indicating its potential role in the pathogenesis of rheumatoid arthritis and multiple myeloma.

Protein Information

Name	Dkk1
Function	Antagonizes canonical Wnt signaling by inhibiting LRP5/6 interaction with Wnt and by forming a ternary complex with the transmembrane protein KREMEN that promotes internalization of LRP5/6 (PubMed:18524778). Inhibits the pro-apoptotic function of KREMEN1 in a Wnt-independent manner, and has anti-apoptotic activity (PubMed:26206087). Plays a role in limb development; attenuates Wnt signaling in the developing limb to allow normal limb patterning (PubMed:18505822).
Cellular Location	Secreted.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.