

**DATASHEET**

Version 20181206

**DKK-1, Mouse****Cat. No.:** Z03289-50**Size:** 50.0 ug**Synonyms:** Dickkopf-1**Description:**

Dickkopf related protein 1 (DKK1) 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.

Recombinant Mouse Dickkopf-related protein 1 produced in *CHO* cells is a polypeptide chain containing 243 amino acids. A fully biologically active molecule, rmDKK-1 has a molecular mass of 19 20 kDa an-

alyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Source:** *CHO***Biological Activity:** ED<sub>50</sub> < 6 µg/ml, measured in stimulation of alkaline phosphatase activity using CCI-226 cells.**Molecular Weight:** 19-20 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant Mouse Dickkopf-related protein 1 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Mouse Dickkopf-related protein 1 should be stable up to 1 week at 4°C or up to 3 months at -20°C.