

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant DKK-1, Mouse

Catalog Number: BK0193-1mg

Source: CHO

Quantity: 1mg

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

Molecular Weight:

19-20 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE.

Biological Activity:

ED50 < 6 µg/ml, measured in stimulation of alkaline phosphatase activity using CCl-226 cells.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

SATLNSVLINSNAIKNLPPPLGGAGGQPG-
SAVSVAPGVLYEGGNKYQTLDNYPYPCAE-
DEECGSDEYCSSPSRGAAGVGGVQICLACRKR-
R-
GVGGVQICLACRKR-
KRCMRHAMCCPGNYCKNGICMPSDHSHFPR-
GEIEESIENLGNHDHNAAGDGYPRRTTLTSKI-
YHTKGQEGSVCLRSSDCAAGLC-
CARHFWKICK-
PVLKEGQVCTKHKRKGSHGLEIFQRCY-
CGEGLACRIQKDHQASNSSRLHTCQRH

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 µg/ml.

Storage:

Lyophilized recombinant Mouse Dickkopf-related protein 1 remains stable up to 6 months at -80 °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.

Usage:

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