

TECHNICAL DATA SHEET

Recombinant Human DKK-1 (Carrier-free)

Catalog Number: 21-7100

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human DKK-1 (Carrier-free)

DESCRIPTION

The DKK (Dickkopf) family of secreted proteins includes DKK-1 through -4, and a related protein, Soggy (DKK-11). DKK-1 is an antagonist of the Wnt signaling pathway, forming inhibitory complexes with Wnt co-receptors LRP5 or LRP6 along with Kremen-1 or Kremen-2. DKK-1 is expressed during development and, in the adult, is expressed in osteoblasts and osteocytes. Over- or under-expression of DKK-1 can result in decreased or increased bone density.

MOLECULAR MASS

Recombinant Human DKK-1 has an expected molecular weight of 25.8 kDa when expressed in HEK293 cells.

AMINO ACID SEQUENCE

TLNSVLNSNA IKNLPPPLGG AAGHPGSAVS AAPGILYPPG NKYQTIDNYQ PYPCAEDEEC GTDEYCASPT RGGDAGVQIC
LACRKRKRRC MRHAMCCPGN YCKNGICVSS DQNHFRGEIE ETITESFGND HSTLDGYSRR TTLSSKMYHT KGQEGSVCLR
SSDCASGLCC ARHFWSKICK PVLKEGQVCT KHRRKGSHGL EIFQRCYCGE GLSCRIQKDH HQASNSSLRH TCQRH

SOURCE

HEK293 cells

APPLICATIONS

Bioassay

PURITY

97 %

STORAGE

-20°C

PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

BIOACTIVITY

Inhibition of the proliferation of HCT116 colorectal carcinoma cells is used to determine activity. At a DKK-1 concentration of 200 ng/ml, approximately 40% growth inhibition was achieved.

RESEARCH AREAS

Bone and Cartilage, Cancer, Neurobiology

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Glinka A, Wu W, Delius H, Monaghan AP, Blumenstock C and Niehrs C. 1998. Nature. 391(6665): 357-362. Krupnik VE, Sharp JD, Jiang C, Robison K, Chickering TW, Amaravadi L, Brown DE, Guyot D, Mays G, Leiby K, Chang B, et al. 1999. Gene. 238(2): 301-313. Mao B, Wu W, Li Y, Hoppe D, Stanek P, Glinka A and Niehrs C. 2001. Nature. 411(6835): 321-325. Niehrs C. 2006. Oncogene. 25:7469-7481. Logan CY and Nusse R. 2004. Annu Rev Cell Dev Biol. 20: 781-810.

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