DKK-1, Human CellExp™, Human Recombinant

CATALOG #:	7132-10	10 µg
	7132-50	50 µg
ALTERNATE NAMES:	Dickkopf-related protein-1, Dickkopf-1, SK	
SOURCE:	HEK293 cells	
PURITY:	≥ 97% by SDS-PAGE gel and HPLC analyses	
MOL. WEIGHT:	35-40 kDa	
ENDOTOXIN LEVEL:	< 0.1 ng/µg of protein (<1EU/µg).	
FORM:	Lyophilized	
FORMULATION:	Sterile filtered through a 0.2 micron filter. Lyophilized from 1X PBS, pH 7.5.	
STORAGE CONDITIONS:	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

RECONSTITUTION:
Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

DESCRIPTION:
DKK-1 is a member of 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. Subsequent studies have shown that DKK-1 and DKK-4 play an important regulatory role in the Wnt /β-catenin signaling pathway by forming inhibitory complexes with LDL receptor-related proteins 5 and 6 (LRP5 and LRP6), which are essential components of the Wnt/β catenin signaling system. LPR5 and LPR6 are single-pass transmembrane proteins that appear to act as co-receptors for Wnt ligands involved in the Wnt/β catenin signaling cascade. It has been suggested that by inhibiting Wnt/β catenin signaling, which is essential for posterior patterning in vertebrates, DKK-1 permits anterior development. This notion is supported by the finding that mice deficient of DKK-1 expression lack head formation and die during embryogenesis. Recombinant human DKK-1 expressed in human 293 cells is a 35-40 kDa glycoprotein containing 235 amino-acid residues.

BIOLOGICAL ACTIVITY:
Determined by its ability to inhibit the proliferation of HCT116 colorectal carcinoma cells. Approximately 40% growth inhibition was achieved at a DKK-1 concentration of 200 ng/ml.

AMINO ACID SEQUENCE:
TLNSVLNSNA IKNLPPPLGG AAGHPGSAVS AAPGILYPGG NKYQTIDNYQ PYPCAEDEEC GTDEYCASPT RGGDAGVQIC LACRKRRKRC MRHAMCCPGN YCKNGICVSS DQNHFRGEIE ETITESFGND HSTLDGYSRR TTLSSKMYHT KGQEGSVCLR SSDCASGLCC ARHFWSKICK PVLKEGQVCT KHRRKGSHGL EIFQRCYCGE GLSCRIQKDH HQASNSSRLH TCQRH

RELATED PRODUCTS:

- DKK1 Antibody **(Cat. No. 3851-100)**
- DKK1 Blocking Peptide **(Cat. No. 3851BP-50)**
- DKK2 Antibody **(Cat. No. 3802-100)**
- DKK2 Blocking Peptide **(Cat. No. 3802BP-50)**
- DKK3 Antibody **(Cat. No. 3893-100)**
- DKK3 Blocking Peptide **(Cat. No. 3893BP-50)**
- DKK4 Antibody **(Cat. No. 3894-100)**
- DKK4 Blocking Peptide **(Cat. No. 3894BP-50)**

FOR RESEARCH USE ONLY! Not to be used in humans.