Human DKK1 / Dkk-1 Protein (His Tag)

Catalog Number: 10170-H08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DKK-1; SK

Protein Construction:

A DNA sequence encoding the human DKK1 precursor (NP_036374.1) (Met 2-His 266) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

Bio Activity:

1.Measured by its ability to inhibit Wnt3a-induced alkaline phosphatase production by C3H10T1/2 cells. The ED50 for this effect is approximately 0.1-0.4 μg/ml in the presence of 10 ng/mL of mouse Wnt3a.
2.Loaded Recombinant Human LRP-6 Protein, His & AVI Tag, Avi-tag Biotinylated (Cat. No. 11968-H49H-B) on SA Biosensor, can bind Recombinant Human DKK-1 Protein, His Tag (Cat. No. 10170-H08H) with an affinity constant of 90.6 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).

Endotoxin:

< 10 EU per mg protein.

Predicted N terminal: Thr 32

Molecular Mass:

The recombinant human DKK1 protein consists of 246 amino acids and has a calculated molecular mass of 27.22 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh DKK1 is approximately 42 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

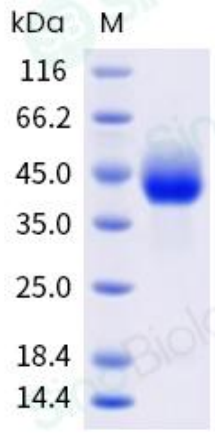
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Dickkopf (DKK) family proteins, consisting of DKK-1, DKK-2, DKK-3 and DKK-4, function as secreted Wnt antagonists by inhibiting Wnt coreceptors LRP5/6. DKK-1, DKK-2, and DKK-4 also bind cell surface Kremen-1 or Kremen-2 and promote the internalization of LRP5/6. Dickkopf related protein 1 (DKK-1) was initially identified as an inducer of head formation in Xenopus embryos. DKK-1 protein modulates Wnt signaling pathway during embryonic development. Increased levels of DKK-1 are found in the majority of lung cancers, esophageal squamous cell carcinomas, and hormone-resistant breast cancers, while DKK-1 expression is decreased in malignant melanoma and colorectal cancers.

References

Horwitz EM. (2004) Dkk-1-mediated expansion of adult stem cells. Trends Biotechnol. 22(8): 386-8.
Jiang T, et al. (2009) Clinical significance of serum DKK-1 in patients with gynecological cancer. Int J Gynecol Cancer. 19(7): 1177-81.