**General Information**

**Gene Name Synonym:**
mdkk-1

**Protein Construction:**
A DNA sequence encoding the mouse DKK1 (NP_034181.2) (Met1-His272) was expressed with a polyhistidine tag at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

**QC Testing**

**Purity:** > 95 % as determined by SDS-PAGE.

**Bio Activity:**
Measured by its ability to inhibit recombinant rmWnt3a induced alkaline phosphatase production by C3H10T 1/2 cells. The ED$_{50}$ for this effect is 0.05-0.3 μg/mL.

**Endotoxin:**
< 1.0 EU per μg protein as determined by the LAL method.

**Stability:**
Samples are stable for up to twelve months from date of receipt at -70 °C.

**Predicted N terminal:** Thr 32

**Molecular Mass:**
The recombinant mouse DKK1 consists of 252 amino acids and predicts a molecular mass of 27.6 kDa.

**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**

**Storage:**
Store it under sterile conditions at -20°C to -80°C 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.

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**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**