

Datasheet for ABIN1672840

DKK1 ELISA Kit



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Overview

Quantity:	96 tests
Target:	DKK1
Binding Specificity:	AA 30-272
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	46.9-3000 pg/mL
Minimum Detection Limit:	46.9 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse DKK1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: CHO Immunogen sequence: S30-H272
Specificity:	Expression system for standard: CHO Immunogen sequence: S30-H272
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<15pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	DKK1
Alternative Name:	DKK1 (DKK1 Products)
Background:	<p>Protein Function: Antagonizes canonical Wnt signaling by inhibiting LRP5/6 interaction with Wnt and by forming a ternary complex with the transmembrane protein KREMEN that promotes internalization of LRP5/6. .</p> <p>Background: Dickkopf-related protein 1 is a protein that in humans is encoded by the DKK1 gene, which was mapped to chromosome 10q11.2. This gene encodes a protein that is a member of the dickkopf family. It is a secreted protein with two cysteine rich regions and is involved in embryonic development through its inhibition of the WNT signaling pathway. Elevated levels of DKK1 in bone marrow, plasma and peripheral blood is associated with the presence of osteolytic bone lesions in patients with multiple myeloma.</p> <p>Synonyms: Dickkopf-related protein 1,Dickkopf-1,Dkk-1,mDkk-1,Dkk1,</p> <p>Full Gene Name: Dickkopf-related protein 1</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	13380
UniProt:	O54908
Pathways:	WNT Signaling , Regulation of Muscle Cell Differentiation , Positive Regulation of fat Cell Differentiation

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Plate:	Pre-coated
Protocol:	mouse DKK1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for DKK1 has been precoated onto

Application Details

96-well plates. Standards(CHO, S30-H272) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for DKK1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse DKK1 amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 3000pg/mL, 1500pg/mL, 750pg/mL, 375pg/mL, 187.5pg/mL, 93.8pg/mL, 46.9pg/mL mouse DKK1 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernatants, serum or plasma (heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each mouse DKK1 standard solution and each sample is measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 228, Standard deviation: 12.54, CV(%): 5.5
- Sample 2: n=16, Mean(pg/ml): 845, Standard deviation: 56.6, CV(%): 6.7
- Sample 3: n=16, Mean(pg/ml): 1474, Standard deviation: 91.39, CV(%): 6.2,
- Sample 1: n=24, Mean(pg/ml): 259, Standard deviation: 17.1, CV(%): 6.6
- Sample 2: n=24, Mean(pg/ml): 897, Standard deviation: 66.4, CV(%): 7.4
- Sample 3: n=24, Mean(pg/ml): 1532, Standard deviation: 105.7, CV(%): 6.9

Restrictions: For Research Use only

Handling

Handling Advice: Avoid multiple freeze-thaw cycles.

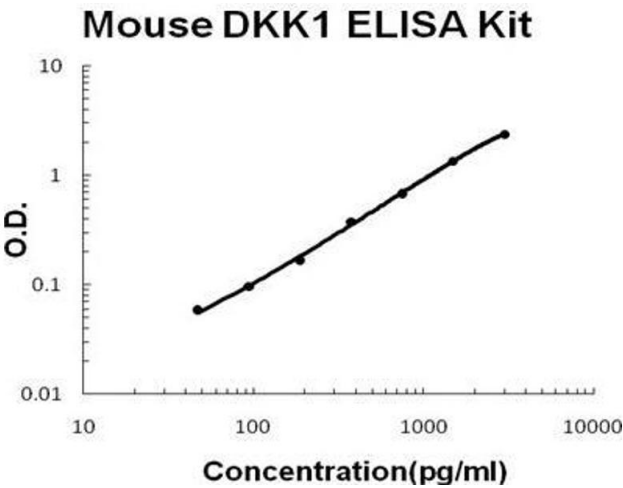
Storage: -20 °C, 4 °C

Storage Comment: Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

Expiry Date: 12 months

Publications

Product cited in: Du, Chen, Wang, Wen, Wang, Wang, Kan, Wei, Zhao: "VEGF-D-induced draining lymphatic enlargement and tumor lymphangiogenesis promote lymph node metastasis in a xenograft model of ovarian carcinoma." in: **Reproductive biology and endocrinology : RB&E**, Vol. 12, pp. 14, (2014) ([PubMed](#)).



ELISA

Image 1. Mouse DKK1 PicoKine ELISA Kit standard curve