abcam

Product datasheet

Human DKK4 ELISA Kit (Dickkopf-4) ab100503

1 Image

Overview

Product name	Human DKK4 ELISA Kit (Dickkopf-4)
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 10 pg/ml
Range	13.72 pg/ml - 10000 pg/ml
Recovery	93 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	109.6	97% - 121%
Serum	95.59	85% - 105%
Plasma	82.62	69% - 91%

Assay duration	Multiple steps standard assay
Species reactivity	**Reacts with:** Human
Product overview	Abcam's DKK4 (Dickkopf-4) Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human DKK4 in serum, plasma, and cell culture supernatants. This assay employs an antibody specific for Human DKK4 coated on a 96-well plate. Standards and samples are pipetted into the wells and DKK4 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human DKK4 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of DKK4 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.
Notes	Optimisation may be required with urine samples.
Platform	Microplate

Properties

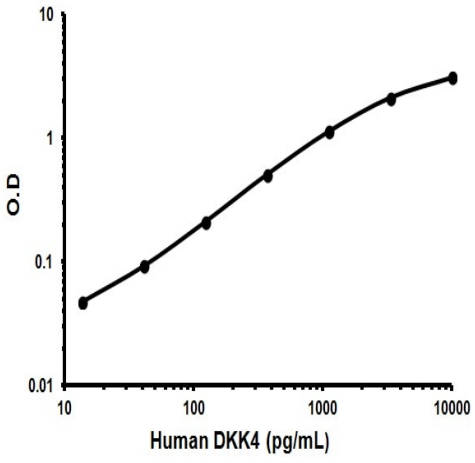
Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
200X HRP-Streptavidin Concentrate	1 x 200µl
20X Wash Buffer	1 x 25ml
5X Assay Diluent	1 x 15ml
Biotinylated anti-Human DKK4	2 vials
DKK4 Microplate (12 x 8 well strips)	1 unit
Recombinant Human DKK4 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

Relevance

DKK4, like DKK1, DKK2, and DKK3, possesses an N terminal signal peptide and 2 conserved cysteine-rich domains, which are separated by a linker region and contain 10 cysteine residues each. The second cysteine region has a putative lipid-binding function that may facilitate WNT/DKK interactions at the plasma membrane. The linker region contains 50 to 55 amino acids in DKK1, DKK2, and DKK4, whereas in DKK3 it contains only 12 amino acids. All DKKs have several potential sites for cleavage by furin-type proteases. Northern blot analysis detected no expression of DKK4, but RT-PCR analysis detected DKK4 expression in cerebellum, T cell, esophagus, and lung cDNA libraries. DKK4 blocks Xenopus Wnt8, Wnt3a, and Wnt2b, but not Dsh or Fz8, induction of a secondary axis in frog embryos, indicating that DKKs antagonize WNT function upstream of WNT receptors.

Images



Typical Standard Curve

Representative Standard Curve using ab100503.

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