

Product datasheet

Human DKK3 ELISA Kit ab236710

Recombinant SimpleStep ELISA

[6 Images](#)

Overview

Product name Human DKK3 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			3.3%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			3.8%

Sample type Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 34.1 pg/ml

Range 156 pg/ml - 10000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	102	93% - 118%
Cell culture media	91	84% - 96%
Hep Plasma	97	91% - 107%
EDTA Plasma	91	90% - 103%
Cit plasma	103	97% - 109%

Assay time 1h 30m

Assay duration

One step assay

Species reactivity**Reacts with:** Human**Product overview**

Human DKK3 ELISA Kit (ab236710) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of DKK3 protein in cit plasma, edta plasma, hep plasma, serum, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human DKK3 with 34.1 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate ([ab203359](#)) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Platform

Pre-coated microplate (12 x 8 well strips)

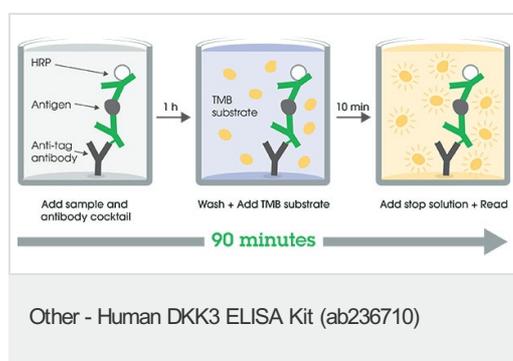
Properties**Storage instructions**

Store at +4°C. Please refer to protocols.

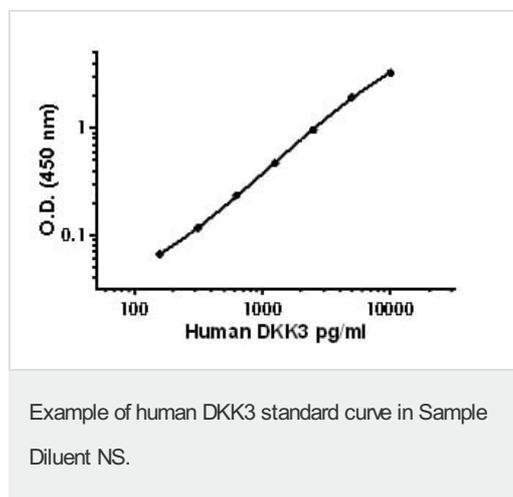
Components	1 x 96 tests
10X Human DKK3 Capture Antibody	1 x 600µl
10X Human DKK3 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human DKK3 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

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. DKKs play an important role in vertebrate development, where they locally inhibit Wnt regulated processes such as antero-posterior axial patterning, limb development, somitogenesis and eye formation. In the adult, Dkks are implicated in bone formation and bone disease, cancer and Alzheimer disease.
Tissue specificity	Highest expression in heart, brain, and spinal cord.
Sequence similarities	Belongs to the dickkopf family.
Domain	The C-terminal cysteine-rich domain mediates interaction with LRP5 and LRP6.
Post-translational modifications	N- and O-glycosylated.
Cellular localization	Secreted.

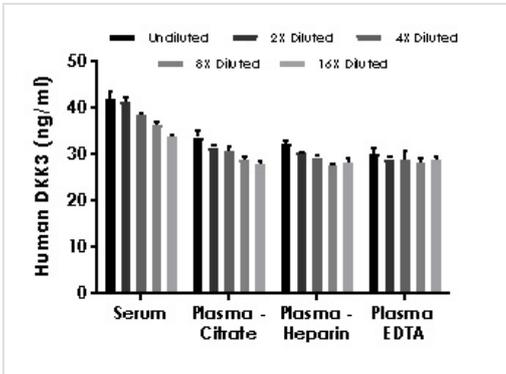
Images



SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

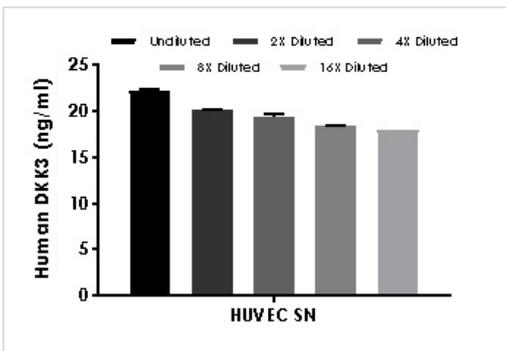


The DKK3 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



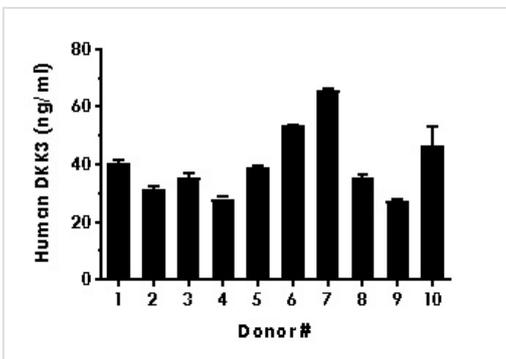
Interpolated concentrations of native DKK3 in human serum and plasma samples.

The concentrations of DKK3 were measured in duplicates, interpolated from the DKK3 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 20%, plasma (citrate) 10%, plasma (heparin) 10%, and plasma (EDTA) 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean DKK3 concentration was determined to be 38.4 ng/mL in serum, 30.5 ng/mL in plasma (citrate), 29.6 ng/ml in plasma (heparin), and 29.0 ng/mL in plasma (EDTA).



Interpolated concentrations of native DKK3 in human cell culture supernatant samples.

The concentrations of DKK3 were measured in duplicates, interpolated from the DKK3 standard curves and corrected for sample dilution. Undiluted samples are as follows: HUVEC supernatant 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean DKK3 concentration was determined to be 19.8 ng/mL in HUVEC supernatant.



Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean DKK3 concentration was determined to be 40.4 ng/mL with a range of 27.3 – 65.8 ng/mL.

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human DKK3 ELISA Kit
(ab236710)

To learn more about the advantages of recombinant antibodies see [here](#).

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