DKKL1 Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	DKKL1, Cell Lysate
Full Product Name	Human DKKL1 HEK293 Overexpression Lysate
Product Gene Name	DKKL1 cell lysate
Product Synonym Names	Human DKKL1/Soggy-1/SGY-1 HEK293 Cell Lysate (WB positive control); dickkopf-like 1; Human CT34 Overexpression Lysate; Human SGY Overexpression Lysate; Human SGY-1 Overexpression Lysate; Human SGY1 Overexpression Lysate
Sequence	Ala31-Leu2 42
Host	HEK293 Cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.
Molecular Weight	27,007 Da
Sequence Positions	472aa
3D Structure	ModBase 3D Structure for Q9UK85
Species	Human
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube.**2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.**
Sequence Construction	A DNA sequence encoding the secreted form of human DKKL1 (Q9UK85) (Ala 31-Leu 242) was expressed with the fused Fc region of human IgG1 at the N-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Applications Tested/Suitable for DKKL1 cell lysate	Western Blot (WB)
Application Notes for DKKL1 cell lysate	WB: Use at an assay dependent dilution.
Related Product Information for DKKL1 cell lysate	Dickkopf-like 1 (DKKL1) or soggy 1, is a glycoprotein unique to mammals that is expressed primarily in developing spermatocytes and localized in the acrosome of mature sperm. It is also expressed in the trophectoderm/placental lineage. This glycoprotein is secreted by postmeiotic male germ cells. DKKL1 is a member of the Dickkopf (DKK) family, a group of proteins that are characterized as secreted antagonists of Wnt signal transduction proteins. In mammals, embryos lacking DKKL1 protein developed into viable, fertile adults. DKKL1, either directly or indirectly, facilitates the ability of sperm to penetrate the zona pellucid. DKKL1 is related to the sperm apoptotic procession. Molecular analyses identified the Fas death ligand (FasL) as a target for DkkL1 pro-apoptotic activity in adult mice. DKKL1 is considered as a negative regulator of adult testic homeostasis and identifies a novel, DKKL1/FasL-dependent, regulation that specifically controls the number of postpubertal spermatocytes. This Human DKKL1 overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of DKKL1 protein from the overexpression lysate was verified.

Product References and Citations for DKKL1 cell lysate	Niehrs C. (2006) Function and biological roles of the Dickkopf family of Wnt modulators. Oncogene. 25 (57): 7469-81.Kohn MJ, et al. (2010) The Acrosomal Protein Dickkopf-Like 1 (DKKL1) Facilitates Sperm Penetration Of The Zona Pellucida. Fertil Steril. 93 (5): 1533-7.KOHN MJ, et al. (2005) DKKL1 (Soggy), A Dickkopf Family Member, Localizes to the Acrosome During Mammalian Spermatogenesis. Mol Reprod Dev. 71 (4): 516-22.
Other Notes	Small volumes of DKKL1 cell lysate vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DKKL1 purchase	MBS8114178 is a cell lysate targeting DKKL1. Also known as Human DKKL1 HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DKKL1. It may not necessarily be applicable to this product.

NCBI GI #	308818218
NCBI GeneID	27120
NCBI Accession #	NP_001184230.1
UniProt Primary Accession #	Q9UK85
UniProt Related Accession #	Q9UK85
GenBank Nucleotide #	NM_001197301.1
NCBI Official Full Name	dickkopf-like protein 1 isoform 2
NCBI Official Synonym Full Names	dickkopf like acrosomal protein 1
NCBI Official Symbol	DKKL1
NCBI Official Synonym Symbols	SGY; CT34; SGY1; SGY-1
UniProt Protein Name	Dickkopf-like protein 1
UniProt Synonym Protein Names	Cancer/testis antigen 34; CT34; Protein soggy-1; SGY-1
Protein Family	Dickkopf-like protein
UniProt Gene Name	DKKL1
UniProt Synonym Gene Names	CT34; SGY-1
NCBI Protein Information	dickkopf-like protein 1
NCBI Summary for DKKL1	The dickkopf protein family interacts with the Wnt signaling pathway and its members are characterized by two conserved cysteine-rich domains. This gene encodes a secreted protein that has low sequence similarity to the dickkopf-3 protein. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Oct 2010]
UniProt Comments for DKKL1	Involved in fertilization by facilitating sperm penetration of the zona pellucida. May promotes spermatocyte apoptosis, thereby limiting sperm production. In adults, may reduces testosterone synthesis in Leydig cells. Is not essential either for development or fertility.
Research Articles on DKKL1	**1.** DKKL was overexpressed in colorectal cancer tissue compared with healthy colon. DKKL expression positively correlated with colorectal cancer progression.
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