NBL1 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	NBL1, Recombinant Protein
Full Product Name	Recombinant Human NBL1 Protein (Fc Tag)
Product Gene Name	NBL1 recombinant protein
Product Synonym Names	NBL; DAND; DAN; DAND1; NBL1; D1S1733E; DAN domain family member 1; DAND 1; Differential screening selected gene aberrant in neuroblastoma; MGC8972; NBL 1; Neuroblastoma candidate region suppression of tumorigenicity 1; Neuroblastoma suppression of tumorigenicity 1; Neuroblastoma suppressor of tumorigenicity 1; NO 3; NO3; Zinc finger protein DAN
Sequence	Ala17-Asp1 81
Host	Mammalian
Form/Format	Lyophilized from a 0.2um filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Purity/Purification	>90% as determined by reducing SDS-PAGE.
Preparation and Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months.
Molecular Weight	19,277 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (19969723..19984949). Location: 1p36.13
OMIM	600613
3D Structure	ModBase 3D Structure for P41271
Species	Human
Tag	C-Fc
Endotoxin	<1.0EU/mg of the protein as determined by the LAL method.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5mg/mL. Concentration is measured by UV-Vis.
Product Categories/Family for NBL1 recombinant protein	Proteins; Recombinant Proteins; Others; Signal Transduction; Cancer
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for NBL1 recombinant protein	The Dan (Differential screening-selected gene aberrative in neuroblastoma, also known as N03) gene was first identified as the putative rat tumor suppressor gene and encodes a protein structurally related to Cerberus and Gremlin in the vertebrates. It is a founding member of the DAN family of secreted proteins, acts as an inhibitor of cell cycle progression, and is closely involved in retinoic acid-induced neuroblastoma differentiation. There are at least five mammalian protein members in the evolutionarily conserved Dan family including DAN, Gremlin/DRM, Cer1 (Cerberus-related), Dante, and PRDC (protein related to DAN and Cerberus), and share the C-terminal cystine-knot motif. As a secreted glycoprotein, DAN is a member of a class of glycoproteins shown to be secreted inhibitors of the transforming growth factor-beta (TGF-beta) and bone morphogenic protein pathways. It binds to BMPs and preventing their interactions with signaling receptor complexes, and accordingly regulates the processes of embryonic development and tissue differentiation. DAN gene product may have an important role in the regulation of the entry of cells into the S phase. Besides, the DAN gene product possesses an ability to revert phenotypes of transformed rat fibroblasts and represents a candidate tumor suppressor gene for neuroblastoma.

Other Notes	Small volumes of NBL1 recombinant protein 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 NBL1 purchase	MBS2581166 is a recombinant protein targeting NBL1. Also known as Recombinant Human NBL1 Protein (Fc Tag). Host: Mammalian.



SDS-PAGE of NBL1 recombinant protein
SDS-PAGE analysis of Human NBL1 proteins, 2ug/lane of Recombinant Human NBL1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 55KD

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NBL1. It may not necessarily be applicable to this product.

NCBI GI #	323276675
NCBI GeneID	4681
NCBI Accession #	NP_001191013.1
UniProt Primary Accession #	P41271
UniProt Secondary Accession #	Q5TGZ2; Q5U0N4; Q96L68; A3KFI7
UniProt Related Accession #	P41271
GenBank Nucleotide #	NM_001204084.2
NCBI Official Full Name	neuroblastoma suppressor of tumorigenicity 1 isoform 2
NCBI Official Synonym Full Names	neuroblastoma 1, DAN family BMP antagonist
NCBI Official Symbol	NBL1
NCBI Official Synonym Symbols	NB; DAN; NO3; DAND1; D1S1733E
UniProt Protein Name	Neuroblastoma suppressor of tumorigenicity 1
UniProt Synonym Protein Names	DAN domain family member 1; Protein N03; Zinc finger protein DAN
Protein Family	N-terminal-borealin-like protein
UniProt Gene Name	NBL1
UniProt Synonym Gene Names	DAN; DAND1
UniProt Entry Name	NBL1_HUMAN
NCBI Protein Information	neuroblastoma suppressor of tumorigenicity 1; DAN domain family member 1; differential screening-selected gene aberrant in neuroblastoma; neuroblastoma candidate region, suppression of tumorigenicity 1

NCBI Summary for NBL1	This gene product is the founding member of the evolutionarily conserved CAN (Cerberus and DAN) family of proteins, which contain a domain resembling the CTCK (C-terminal cystine knot-like) motif found in a number of signaling molecules. These proteins are secreted, and act as BMP (bone morphogenetic protein) antagonists by binding to BMPs and preventing them from interacting with their receptors. They may thus play an important role during growth and development. Alternatively spliced transcript variants have been identified for this gene. Read-through transcripts between this locus and the upstream mitochondrial inner membrane organizing system 1 gene (GeneID 440574) have been observed. [provided by RefSeq, May 2013]
UniProt Comments for NBL1	NBL1 iso2: Possible candidate as a tumor suppressor gene of neuroblastoma. May play an important role in preventing cells from entering the final stage (G1/S) of the transformation process. Belongs to the DAN family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted, signal peptide; Tumor suppressor; Secreted Chromosomal Location of Human Ortholog: 1p36.13 Cellular Component: extracellular space Molecular Function: morphogen activity; protein homodimerization activity Biological Process: nervous system development; determination of dorsal identity; positive regulation of neuron differentiation; neurite morphogenesis; negative regulation of BMP signaling pathway
Research Articles on NBL1	**1.** CDKN2A, GATA3, CREBBP, ITGA2, NBL1 and TGM4 were down-regulated in the prostate carcinoma glands compared to the corresponding normal glands
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