Recombinant Human NBL1/DAND1 Protein (His Tag)

Catalog No. PKSH031808

Note: Centrifuge before opening to ensure complete recovery of vial contents.

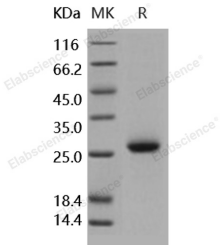
Description

Synonyms	D1S1733E;DAN;DAND1;NB;NO3
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Asp 180
Accession	NP_005371.1
Calculated Molecular Weight	19.3 kDa
Observed molecular weight	27 kDa
Tag	C-His
Bioactivity	Measured by its ability to inhibit BMP4-induced activity in MC3T3-E1 Mouse osteoblastic cells. The ED50 for this effect is typically 5-20 μg/ml in the presence of 50 ng/mL of recombinant human BMP4.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

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 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 cereberus); 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 regulation of the entry of cells into the S phase. In addition; DAN gene product possesses an ability to revert phenotypes of transformed rat fibroblasts and represents a candidate tumour suppressor gene for neuroblastoma.

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