Recombinant Human NBL1/DAND1 Protein (Fc Tag)

Catalog Number: PKSH031809

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

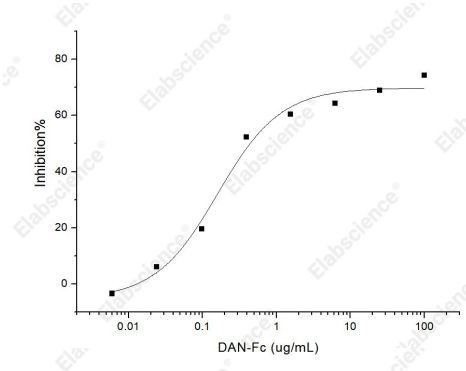
Description

Species	Human
Source	HEK293 Cells-derived Human NBL1/DAND1 protein Met 1-Asp 180, with an C-terminal hFc
Calculated MW	44.4 kDa
Observed MW	55-60 kDa
Accession	NP_005371.1
Bio-activity	Measured by its ability to inhibit BMP4-induced activity in MC3T3-E1 Mouse osteoblastic cells. The ED_{50} for this effect is typically 0.2-1. 2 μg/ml in the presence of 50 ng/mL of recombinant human BMP4.

Properties

Purity	> 90% 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°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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% Tween 80 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



Measured by its ability to inhibit BMP4-induced activity in MC3T3-E1 Mouse osteoblastic cells. The ED_{50} for this effect is typically 0.2-1.2 μg/ml in the presence of 50 ng/mL of recombinant human BMP4.

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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