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# 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<sub>50</sub> for this effect is typically 0.2-1. 2  $\mu$ g/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

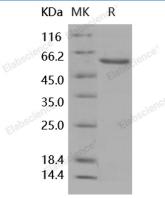
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

## Data



> 90 % as determined by reducing SDS-PAGE.

## Background

## For Research Use Only

Web:www.elabscience.com

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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; Cerl (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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