

# Human C12orf53 Protein (Fc Tag)

Catalog Number: 13238-H02H



**Sino Biological Inc.**  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

C12orf53; Ieda-1; LEDA1; PANP; AI255183; AU067746; C530028O21Rik; Panp

### Protein Construction:

A DNA sequence encoding the human C12orf53 (Q8IYJ0-1) (Met1-Pro178) was expressed, fused with the Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 96 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Ser 32

### Molecular Mass:

The recombinant human C12orf53/Fc is a disulfide-linked homodimer. The reduced monomer comprises 388 amino acids and has a predicted molecular mass of 42.3 kDa. The apparent molecular mass of the protein is approximately 53 kDa in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

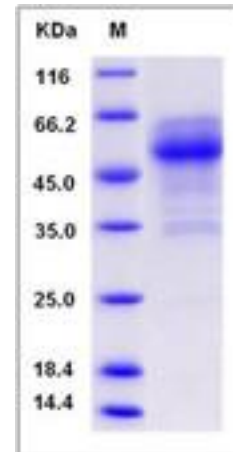
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

C12orf53 is mainly expressed in adult brain and cerebellum. It also can be detected in fetal brain and virtually no expression in spleen, heart, kidney, liver and dorsal ganglion relative to brain. C12orf53 acts as a ligand for PILRA in neural tissues, where it may be involved in immune regulation. Chromosome 12 encodes over 1,100 genes within 132 million bases. A number of skeletal deformities are linked to chromosome 12 including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC class I interaction.

## References

1. Strausberg RL, *et al.* (2002) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc Natl Acad Sci.* 99(26):16899-903.
2. Ota T, *et al.* (2004) Complete sequencing and characterization of 21,243 full-length human cDNAs. *Tissue Antigens. Nat Genet.* 36(1):40-5.
3. Kogure A, *et al.* (2011) PANP is a novel O-glycosylated PILR ligand expressed in neural tissues. *Biochem Biophys Res Commun.* 405(3):428-33.

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