



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human FAM171A2 Protein
Catalog Number: HRP-4394
Manufacturer: LD Biopharma, Inc. USA

Introduction

Human FAM171A2 gene encodes a cell membrane protein which is associated with frontotemporal dementia and Grn-Related Frontotemporal Lobar Degeneration. It is also a key regulator of progranulin (PGRN) expression, which affects the risk of various neurodegenerative diseases. Additionally, FAM171A2 is a potential receptor for the neuronal uptake of α -synuclein fibrils, potentially mediating their internalization through endocytosis and drives Parkinson's disease.

Full-length extracellular domain of human FAM171A2 cDNA (30–315aa) was constructed with codon optimization gene synthesis and expressed with a human Alpha Fetal Protein N-terminal (AFPn) -His-TEV cleavage site Tag (217aa) fusion at its N-terminal in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: FAM171A2
Accession Number: NP_940877
Species: Human
Size: 40 μ g / Vial
Composition: 0.4 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose, DTT and others.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Kai-Min Wu, et al., **Neuronal FAM171A2 mediates α -synuclein fibril uptake and drives Parkinson's disease.** Science. 20 Feb 2025



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Applications

1. May be used for in vitro FAM171A2 mediated neuronal cell's differentiation regulation study in vitro with this recombinant FAM171A2 protein either as soluble factor or as coating matrix protein.
2. May be used for FAM171A2 protein-protein interaction assay.
3. Potential Therapeutic / diagnostic protein, modulating FAM171A2 protein activities in vivo may be benefits for neuronal disease treatment.
4. As native human FAM171A2 antigen for specific antibody production.

Quality Control

Purity: > 92% by SDS-PAGE.

Recombinant **AFP_n**-FAM171A2 Extracellular Domain Fusion Protein Sequence (55.5 kD)

MTLHRNEYGIASILDSYQCTAEISLADLATIFFAQFVQEATYKEVSKMVKDALTAIEKPTGDEQSSGCLE
NQLPAFLEELCHEKEILEKYGHSDCCSQSEGRHNCFLAHKKPTPASIPLFQVPEPVTSCAYEEDRETF
MNKFIYEIARRHPFLYAPTILLWAARYDKIIPSCCKAENAVECFQTKAATVTKELRESSGGSHHHHHGS
ENLYFQGGKSPPEPPSPQEILIKVQVYVSGELVPLARASVDVFGNRTLLAAGTTDSEGVATLPLSYRLG
TWVLVTAARPGFLTNSVPWRVDKLPYASVSLYLLPERPATLILYEDLVHILLGSPGARSQPLVQFORRA
ARLPVSSTYSQLWASLTPASTQQEMRAFPALGTEASSGNGSWLELMPLTAVSVHLLTGNGTEVPLSGP
IHLSPVPSETRALTVGTSIPAWRFDPKSGLWVRNGTGVIKGRQLYWTFVSPQLGYWVAAMASPTAGL
VTITSGIQDIGTYHT