Layilin / LAYN (LAYN) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Layilin / LAYN, Recombinant Protein
Full Product Name	Recombinant Human Layilin / LAYN Protein (Fc tag)
Product Gene Name	LAYN recombinant protein
Product Synonym Names	LAYN, FLJ30977, FLJ31092
Host	Human Cells
Form/Format	Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5
Purity/Purification	> 90 % as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -70 degree C
Molecular Weight	25,571 Da
3D Structure	ModBase 3D Structure for Q6UX15
Predicted N Terminal	Ala 22
Endotoxin	< 1.0 EU per mug of the protein as determined by the LAL method
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Application Notes for LAYN recombinant protein	The recombinant human LAYN/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 437 amino acids and predicts a molecular mass of 49.5 kDa. As a result of glycosylation, the rhLAYN/Fc monomer migrates as an approximately 60-65 kDa protein in SDS-PAGE under reducing conditions.
Related Product Information for LAYN recombinant protein	Background: Layilin, a recently characterized as a 55 kDa transmembrane protein with homology to C-type lectins, is present in numerous cell lines and tissue extracts. As one of the adaptor proteins, talin mediates the interactions between the actin filaments and the cell membrane by binding to integral membrane proteins and to the cytoskeleton. Layilin is a newly identified membrane-binding site for talin in peripheral ruffles of spreading cells, a ten-amino acid motif in the layilin cytoplasmic domain is sufficient for talin binding, and its adjacent LH2-LH3 tandem arrays in the cytoplasmic domain provide docking sites for talin. Furthermore, talin binds layilin, PIPK1gamma and integrins in similar although subtly different ways. Layilin binds specifically to hyaluronan (HA) through its extracellular domain, a ubiquitous extracellular matrix component in most animal tissues and body fluids, but not to other tested glycosaminoglycans. The research suggests that layilin may mediate signals from extracellular matrix to the cell cytoskeleton via interaction with different intracellular binding partners and thereby be involved in the modulation of cortical structures in the cell. All the above actions reveal an interesting parallel between layilin and the known HA receptor CD44. In addition, merlin and radixin have been identified as different intracellular binding partners of layilin. Accordingly, it has been suggested that layilin plays roles in a variety of cellular processes, including cell shape, adhesion, motility, and homeostasis, as well as signal transduction. In addition, layilin might play an important role in the process of invasion and lymphatic metastasis of lung carcinoma. Description: A DNA sequence encoding the extracellular domain (Met 1-Glu 220) of human Layilin (NP_849156.1) precursor was expressed with the C-terminal fused Fc region of human IgG1.
Other Notes	Small volumes of LAYN recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for LAYN purchase	MBS2546412 is a recombinant protein targeting LAYN. Also known as Recombinant Human Layilin / LAYN Protein (Fc tag). Host: Human Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LAYN. It may not necessarily be applicable to this product.

NCBI GI #	30520331
NCBI GeneID	143903
NCBI Accession #	NP_849156.1
UniProt Primary Accession #	Q6UX15
UniProt Secondary Accession #	Q8TAY8; Q96NC5; Q96NF3; A6NJB0; B4DJU0
UniProt Related Accession #	Q6UX15
GenBank Nucleotide #	NM_178834.4
NCBI Official Full Name	layilin isoform 2
NCBI Official Synonym Full Names	layilin
NCBI Official Symbol	LAYN
UniProt Protein Name	Layilin
Protein Family	Layilin
UniProt Gene Name	LAYN
NCBI Protein Information	layilin
UniProt Comments for LAYN	Receptor for hyaluronate.
Research Articles on LAYN	**1.** Renal biopsy samples from patients with glomerulonephritis showed high expression of LAYN in tubular epithelial cells.
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