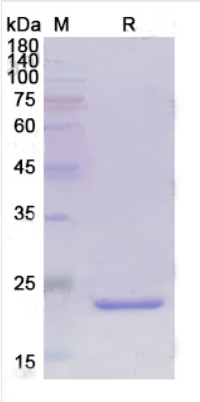
AGRN Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	AGRN, Recombinant Protein
Full Product Name	Recombinant Human AGRN, N-His
Product Gene Name	AGRN recombinant protein
Product Synonym Names	AGRN; C22; Agrin; C90; AGRIN
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for one week. Store at -20 to -80 degree C for twelve months from the date of receipt.
Molecular Weight	217,232 Da
Sequence Positions	Cys1856-Val2045
Chromosome Location	Chromosome: 1; NC_000001.10 (955503..991499). Location: 1p36.33
OMIM	103320
3D Structure	ModBase 3D Structure for O00468
Species	Human
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for AGRN recombinant protein	Recombinant Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for AGRN recombinant protein	SDS-PAGE (SDS), Western Blot (WB), ELISA (EIA), Immunogen
Related Product Information for AGRN recombinant protein	MBS1572461 is a recombinant protein targeting AGRN. Also known as Recombinant Human AGRN, N-His. Host: E coli.
Other Notes	Small volumes of AGRN 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.



SDS-Page of AGRN recombinant protein
SDS PAGE for recombinant Human AGRN protein

ADDITIONAL DETAILS

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

NCBI GI #	2988422
NCBI GeneID	375790
NCBI Accession #	AAC39776.1
UniProt Primary Accession #	O00468
UniProt Secondary Accession #	Q5SVA1; Q5SVA2; Q60FE1; Q7KYS8; Q8N4J5; Q96IC1; Q9BTD4
UniProt Related Accession #	O00468
NCBI Official Full Name	agrin
NCBI Official Synonym Full Names	agrin
NCBI Official Symbol	AGRN
UniProt Protein Name	Agrin
Protein Family	Agrin
UniProt Gene Name	AGRN
UniProt Synonym Gene Names	AGRIN; C90; C22
UniProt Entry Name	AGRIN_HUMAN
NCBI Protein Information	agrin; agrin proteoglycan
NCBI Summary for AGRN	This gene encodes one of several proteins that are critical in the development of the neuromuscular junction (NMJ), as identified in mouse knock-out studies. The encoded protein contains several laminin G, Kazal type serine protease inhibitor, and epidermal growth factor domains. Additional post-translational modifications occur to add glycosaminoglycans and disulfide bonds. In one family with congenital myasthenic syndrome affecting limb-girdle muscles, a mutation in this gene was found. [provided by RefSeq, Aug 2011]

UniProt Comments for AGRN	AGRN: Plays a central role in the formation and the maintenance of the neuromuscular junction (NMJ), the synapse between motor neuron and skeletal muscle. Ligand of the MUSK signaling complex that directly binds LRP4 in this complex and induces the phosphorylation of MUSK, the kinase of the complex. The activation of MUSK in myotubes induces the formation of NMJ by regulating different processes including the transcription of specific genes and the clustering of AChR in the postsynaptic membrane. Defects in AGRN are a cause of myasthenia, limb-girdle, familial (LGM). A congenital myasthenic syndrome characterized by a typical 'limb girdle' pattern of muscle weakness with small, simplified neuromuscular junctions but normal acetylcholine receptor and acetylcholinesterase function. Protein type: Secreted; Cell adhesion; Extracellular matrix; Cell development/differentiation; Secreted, signal peptide Chromosomal Location of Human Ortholog: 1p36.33 Cellular Component: extracellular matrix; lysosomal lumen; extracellular space; cell surface; Golgi lumen; cytoplasm; integral to membrane; extracellular region; plasma membrane; synapse; basal lamina; cell junction Molecular Function: heparan sulfate proteoglycan binding; protein binding; structural constituent of cytoskeleton; acetylcholine receptor regulator activity; laminin binding; calcium ion binding; sialic acid binding Biological Process: positive regulation of filopodium formation; phototransduction, visible light; axon guidance; clustering of voltage-gated sodium channels; extracellular matrix organization and biogenesis; acetylcholine receptor signaling, muscarinic pathway; glycosaminoglycan metabolic process; neurotransmitter receptor metabolic process; pathogenesis; positive regulation of synaptic growth at neuromuscular junction; signal transduction; receptor clustering; chondroitin sulfate metabolic process; glycosaminoglycan biosynthetic process; glycosaminoglycan catabolic process; plasma membrane organization and biogenesis; positive regulation of neuron apoptosis; carbohydrate metabolic process; synapse organization and biogenesis; positive regulation of transcription from RNA polymerase II promoter; regulation of receptor activity; retinoid metabolic process; neuromuscular junction development Disease: Myasthenic Syndrome, Congenital, With Pre- And Postsynaptic Defects
Research Articles on AGRN	**1.** study identifies a spontaneous agrin mutation that reduces the ability of z+ agrin to activate MuSK and induce AChR clustering; this results in a severe congenital myasthenic syndrome in the patient, with both pre- and postsynaptic defects at the neuromuscular junction
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