GRIA1 Human Protein

PRODUCT OVERVIEW

Product Name	GRIA1, Protein
Full Product Name	Human GRIA1 full length protein-synthetic nanodisc
Product Gene Name	GRIA1 protein
Product Synonym Names	GLUH1; GLUR1; GLURA; GluA1; HBGR1
Host	HEK293
Form/Format	Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5%-8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with pH lower
Preparation and Storage	Store at -20 degree C to -80 degree C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80 degree C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Molecular Weight	101,506 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (152870084..153193429). Location: 5q31.1
OMIM	138248
3D Structure	ModBase 3D Structure for P42261
Tag	C-DYKDDDDK
Product Categories/Family for GRIA1 protein	Full Length Transmembrane Proteins; Ion Channels: Glutamate Receptors
Related Product Information for GRIA1 protein	Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. These receptors are heteromeric protein complexes with multiple subunits, each possessing transmembrane regions, and all arranged to form a ligand-gated ion channel. The classification of glutamate receptors is based on their activation by different pharmacologic agonists. This gene belongs to a family of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA) receptors. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
Other Notes	Small volumes of GRIA1 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 GRIA1 purchase	MBS1883178 is a protein targeting GRIA1. Also known as Human GRIA1 full length protein-synthetic nanodisc. Host: HEK293.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GRIA1. It may not necessarily be applicable to this product.

NCBI GI #	167001419
NCBI GeneID	2890
NCBI Accession #	NP_000818.2
UniProt Primary Accession #	P42261
UniProt Secondary Accession #	Q2NKM6; B7Z2S0; B7Z3F6; D3DQI4

UniProt Related Accession #	P42261
GenBank Nucleotide #	NM_000827.3
NCBI Official Full Name	glutamate receptor 1 isoform 1
NCBI Official Synonym Full Names	glutamate receptor, ionotropic, AMPA 1
NCBI Official Symbol	GRIA1
NCBI Official Synonym Symbols	GLUH1; GLUR1; GLURA; GluA1; HBGR1
UniProt Protein Name	Glutamate receptor 1
UniProt Synonym Protein Names	AMPA-selective glutamate receptor 1; GluR-A; GluR-K1; Glutamate receptor ionotropic, AMPA 1
UniProt Gene Name	GRIA1
UniProt Synonym Gene Names	GLUH1; GLUR1; GluR-1; GluA1
UniProt Entry Name	GRIA1_HUMAN
NCBI Protein Information	glutamate receptor 1; AMPA 1; gluR-1; gluR-A; gluR-K1; AMPA-selective glutamate receptor 1
UniProt Comments for GRIA1	GluR1: an integral membrane protein belonging to the glutamate-gated ion channel family. L-glutamate (Glu) acts as an excitatory neurotransmitter at many synapses in the central nervous system. Glutamate receptors are heteromeric protein complexes with multiple subunits, each possessing transmembrane regions, and all arranged to form a ligand-gated ion channel. The postsynaptic actions of Glu are mediated by a variety of receptors that are named according to their selective agonists. Each of the four GluR proteins (GRIA1-4) include flip and flop isoforms generated by alternative RNA splicing. Expressed in granule and pyramidal cells in the hippocampal formation. Protein type: Membrane protein, integral; Channel, ligand-gated; Channel, calcium; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 5q31.1 Cellular Component: postsynaptic membrane; synaptic vesicle; endoplasmic reticulum membrane; recycling endosome; cell surface; cell soma; postsynaptic density; dendrite; dendritic spine; plasma membrane; cell junction Molecular Function: protein binding; extracellular-glutamate-gated ion channel activity; alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate selective glutamate receptor activity; glutamate receptor activity; PDZ domain binding Biological Process: synaptic transmission, glutamatergic; synaptic transmission; long-term memory; ionotropic glutamate receptor signaling pathway; receptor internalization; signal transduction
Research Articles on GRIA1	**1.** human hippocampal samples from neonatal seizure autopsy cases also showed an increase in GluR1 S831 and S845.
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