

Product datasheet for TP326253L

OriGene Technologies, Inc.

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GRIA1 (NM_001114183) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human glutamate receptor, ionotropic, AMPA 1 (GRIA1), transcript

variant 2, 1 mg

Species: Human Expression Host: HEK293T

Expression cDNA Clone >RC226253 representing NM 001114183

or AA Sequence: Red=Cloning site Green=Tags(s)

MQHIFAFFCTGFLGAVVGANFPNNIQIGGLFPNQQSQEHAAFRFALSQLTEPPKLLPQIDIVNISDSFEM TYRFCSQFSKGVYAIFGFYERRTVNMLTSFCGALHVCFITPSFPVDTSNQFVLQLRPELQDALISIIDHY KWQKFVYIYDADRGLSVLQKVLDTAAEKNWQVTAVNILTTTEEGYRMLFQDLEKKKERLVVVDCESERLN AILGQIIKLEKNGIGYHYILANLGFMDIDLNKFKESGANVTGFQLVNYTDTIPAKIMQQWKNSDARDHTR VDWKRPKYTSALTYDGVKVMAEAFQSLRRQRIDISRRGNAGDCLANPAVPWGQGIDIQRALQQVRFEGLT GNVQFNEKGRRTNYTLHVIEMKHDGIRKIGYWNEDDKFVPAATDAQAGGDNSSVQNRTYIVTTILEDPYV MLKKNANQFEGNDRYEGYCVELAAEIAKHVGYSYRLEIVSDGKYGARDPDTKAWNGMVGELVYGRADVAV APLTITLVREEVIDFSKPFMSLGISIMIKKPQKSKPGVFSFLDPLAYEIWMCIVFAYIGVSVVLFLVSRF SPYEWHSEEFEEGRDQTTSDQSNEFGIFNSLWFSLGAFMQQGCDISPRSLSGRIVGGVWWFFTLIIISSY

SPYEWHSEEFEEGRDQTTSDQSNEFGIFNSLWFSLGAFMQQGCDISPRSLSGRIVGGVWWFFTLIIISSY TANLAAFLTVERMVSPIESAEDLAKQTEIAYGTLEAGSTKEFFRRSKIAVFEKMWTYMKSAEPSVFVRTT EEGMIRVRKSKGKYAYLLESTMNEYIEQRKPCDTMKVGGNLDSKGYGIATPKGSALRGPVNLAVLKLSEQ GVLDKLKSKWWYDKGECGSKDSGSKDKTSALSLSNVAGVFYILIGGLGLAMLVALIEFCYKSRSESKRMK GFCLIPQQSINEAIRTSTLPRNSGAGASSGGSGENGRVVSHDFPKSMQSIPCMSHSSGMPLGATGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK
Predicted MW: 101.3 kDa

Concentration: $>0.05 \mu g/\mu L$ as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol **Bioactivity:** In vitro ubiquitination assay substrate (PMID: 28212375)

In vitro ubiquitination assay substrate (PMID: 29771335)





GRIA1 (NM_001114183) Human Recombinant Protein - TP326253L

Preparation: Recombinant protein was captured through anti-DDK affinity column followed by conventional

chromatography steps.

Note: For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 001107655

Locus ID: 2890

UniProt ID: <u>P42261</u>, <u>Q59GL5</u>

Cytogenetics: 5q33.2 RefSeq ORF: 2718

Synonyms: GluA1; GLUH1; GLUR1; GLURA; HBGR1

Summary: 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]

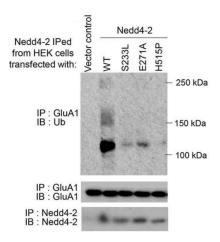
Protein Families: Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways: Amyotrophic lateral sclerosis (ALS), Long-term depression, Long-term potentiation,

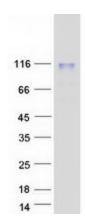
Neuroactive ligand-receptor interaction



Product images:



Three epilepsy-associated missense mutations (S233L, E271A, H515P) of Nedd4-2 reduce GluA1 ubiquitination. Western blots of Ub and GluA1 after immunoprecipitation with anti-GluA1 antibody following in vitro ubiquitination with recombinant GluA1 (OriGene [TP326253]). HAtagged wild-type (WT) or mutant Nedd4-2s used for in vitro ubiquitination were obtained from HEK cells transfected with one of the Nedd4-2s followed by immunoprecipitation with an anti-Nedd4-2 antibody. Figure cited from PLoS Genet, PMID: 28212375



Coomassie blue staining of purified GRIA1 protein (Cat# [TP326253]). The protein was produced from HEK293T cells transfected with GRIA1 cDNA clone (Cat# [RC226253]) using MegaTran 2.0 (Cat# [TT210002]).