Glutamate Receptor, Ionotropic, N-Methyl-D-Aspartate 1 (GRIN1) ELISA Kit for Canine

PRODUCT OVERVIEW

Product Name	Glutamate Receptor, Ionotropic, N-Methyl-D-Aspartate 1 (GRIN1), ELISA Kit
Full Product Name	Canine Glutamate Receptor, Ionotropic, N-Methyl-D-Aspartate 1 ELISA Kit
Product Gene Name	GRIN1 elisa kit
Species Reactivity	Canine
Preparation and Storage	Store all reagents at 2-8 degree C
Related Product Information for GRIN1 elisa kit	MBS091088 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Glutamate Receptor, Ionotropic, N-Methyl-D-Aspartate 1 (GRIN1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing GRIN1. The ELISA analytical biochemical technique of the MBS091088 kit is based on GRIN1 antibody-GRIN1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect GRIN1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, GRIN1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of GRIN1 elisa kit 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GRIN1. It may not necessarily be applicable to this product.

NCBI GI #	11038637
NCBI GeneID	2902
NCBI Accession #	NP_015566.1
UniProt Related Accession #	Q05586
GenBank Nucleotide #	NM_007327.3
NCBI Official Full Name	glutamate receptor ionotropic, NMDA 1 isoform NR1-3
NCBI Official Synonym Full Names	glutamate receptor, ionotropic, N-methyl D-aspartate 1
NCBI Official Symbol	GRIN1
NCBI Official Synonym Symbols	NR1; MRD8; GluN1; NMDA1; NMDAR1
UniProt Protein Name	Glutamate receptor ionotropic, NMDA 1
UniProt Synonym Protein Names	Glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate receptor subunit NR1
Protein Family	Glutamate receptor ionotropic
UniProt Gene Name	GRIN1
UniProt Synonym Gene Names	NMDAR1; GluN1; NMD-R1
NCBI Protein Information	glutamate receptor ionotropic, NMDA 1; NMD-R1; glutamate [NMDA] receptor subunit zeta 1; glutamate [NMDA] receptor subunit zeta-1; N-methyl-D-aspartate receptor subunit NR1; N-methyl-D-aspartate receptor channel, subunit zeta-1

NCBI Summary for GRIN1	The protein encoded by this gene is a critical subunit of N-methyl-D-aspartate receptors, members of the glutamate receptor channel superfamily which are heteromeric protein complexes with multiple subunits arranged to form a ligand-gated ion channel. These subunits play a key role in the plasticity of synapses, which is believed to underlie memory and learning. Cell-specific factors are thought to control expression of different isoforms, possibly contributing to the functional diversity of the subunits. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2008]
UniProt Comments for GRIN1	NMDAR1: a subunit of N-methyl-D-aspartate (NMDA) receptors, members of the glutamate receptor channel superfamily. Possesses high calcium permeability and voltage-dependent sensitivity to magnesium and is modulated by glycine. Plays a key role in synaptic plasticity, synaptogenesis, excitotoxicity, memory acquisition and learning. Mediates neuronal functions in glutamate neurotransmission. Three alternatively-spliced isoforms have been described. Protein type: Membrane protein, multi-pass; Membrane protein, integral; Channel, calcium; Channel, ligand-gated Chromosomal Location of Human Ortholog: 9q34.3 Cellular Component: postsynaptic membrane; synaptic vesicle; neuron projection; cell surface; integral to plasma membrane; endoplasmic reticulum; dendrite; postsynaptic density; dendritic spine; plasma membrane; excitatory synapse; terminal button; synapse; cell junction; N-methyl-D-aspartate selective glutamate receptor complex Molecular Function: voltage-gated cation channel activity; neurotransmitter binding; glutamate receptor binding; calcium channel activity; calcium ion binding; calmodulin binding; protein binding; enzyme binding; glutamate binding; extracellular-glutamate-gated ion channel activity; protein heterodimerization activity; N-methyl-D-aspartate selective glutamate receptor activity; glycine binding Biological Process: regulation of long-term neuronal synaptic plasticity; axon guidance; male mating behavior; prepulse inhibition; positive regulation of apoptosis; adult locomotory behavior; regulation of dendrite morphogenesis; rhythmic process; response to morphine; sensory perception of pain; regulation of axonogenesis; calcium ion homeostasis; synaptic transmission; regulation of respiratory gaseous exchange; conditioned taste aversion; ephrin receptor signaling pathway; visual learning; negative regulation of neuron apoptosis; protein tetramerization; cation transport; synaptic transmission, glutamatergic; response to amphetamine; respiratory gaseous exchange; social behavior; pons maturation; cellular calcium ion homeostasis; regulation of membrane potential; response to ethanol; propylene metabolic process; olfactory learning; long-term memory; regulation of synaptogenesis; suckling behavior; ionotropic glutamate receptor signaling pathway; positive regulation of transcription from RNA polymerase II promoter; cerebral cortex development; regulation of excitatory postsynaptic membrane potential; response to calcium ion Disease: Mental Retardation, Autosomal Dominant 8
Research Articles on GRIN1	**1.** The rs1126442, GRIN1 polymorphism contributes to the genetic vulnerability to psychosis in METH-dependent subjects in the Thai population.
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