Recombinant NMDA1 protein (His tag)

Catalog Number	531123
Synonyms	DNMDAR-I; dNR1
Species	Drosophila melanogaster
Expression System	E. coli
Accession	Q24418
Gene ID	40665
Molecular Weight	Predictes a molecular mass of 19.72 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	673-831
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 673-831 aa (Q24418) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This recombinant protein product features a 159-amino acid fragment (residues 673-831) of the Glutamate [NMDA] receptor subunit 1 (dNR1) from Drosophila melanogaster. It is designed as a stable, soluble unit ideal for structural studies and biochemical assays, supporting research into NMDA receptor function and synaptic mechanisms. The full-length Glutamate [NMDA] receptor subunit 1 (dNR1) is an NMDA receptor subtype of glutamate-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium, mediated by glycine. It plays a key role in synaptic plasticity, synaptogenesis, excitotoxicity, memory acquisition, and learning, mediating neuronal functions in glutamate neurotransmission. The protein is involved in the cell surface targeting of NMDA receptors and contributes to associative learning and long-term memory consolidation. It is localized to the cell membrane, postsynaptic cell membrane, and postsynaptic density, functioning as a multi-pass membrane protein critical for neural signaling and cognitive processes.