# Recombinant NMDE3 protein (His tag)

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| **Catalog Number** | 542694 |
| **Synonyms** | GluN2C; Glutamate [NMDA] receptor subunit epsilon-3; N-methyl D-aspartate receptor subtype 2C; NMDAR2C; NR2C |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q14957 |
| **Molecular Weight** | Predictes a molecular mass of 20.67 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band. |

## Product Information

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| **Sequence Region** | 645-813 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >90%, 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 645-813 aa (Q14957) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human Glutamate receptor ionotropic, NMDA 2C (GluN2C) fragment (amino acids 645-813) is a high-purity, soluble protein designed for structural and biochemical studies. This 169-amino acid fragment, derived from the GRIN2C gene, offers a stable and functional unit ideal for investigating NMDA receptor mechanisms and synaptic plasticity.<br>The full-length GluN2C protein is a critical component of N-methyl-D-aspartate (NMDA) receptors, which function as heterotetrameric, ligand-gated cation channels with high calcium permeability and voltage-dependent magnesium block. These receptors are essential for synaptic plasticity, learning, and memory formation, contributing to slow excitatory postsynaptic currents and long-term potentiation. Channel activation requires binding of L-glutamate to GluN2, glycine or D-serine to GluN1, and membrane depolarization to relieve magnesium inhibition. GluN2 subunits, including GluN2C, confer distinct kinetic properties, pH sensitivity, calcium permeability, and modulator binding. Located in the postsynaptic cell membrane as a multi-pass membrane protein, GluN2C plays a key role in neuronal signaling and plasticity pathways. |