Recombinant NOVA2 protein (His tag)

Catalog Number	541554
Synonyms	Astrocytic NOVA1-like RNA-binding protein; Neuro-oncological ventral antigen 2
Species	Human
Expression System	E. coli
Accession	Q9UNW9
Molecular Weight	Predictes a molecular mass of 21.30 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	32-214
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 32-214 aa (Q9UNW9) 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	Recombinant Human NOVA2 (RNA-binding protein Nova-2) Fragment (aa 32-214) - A high-purity protein fragment encompassing both KH domains (KH1 and KH2), specifically designed for studying RNA-binding mechanisms and alternative splicing regulation in neuronal development. This fragment serves as an essential tool for investigating sequence-specific RNA recognition and spliceosome assembly dynamics. NOVA2 (Neuro-oncological ventral antigen 2) is a crucial RNA-binding protein that regulates alternative splicing in neurons by binding pre-mRNA in a sequence-specific manner to activate exon inclusion or exclusion. It specifically recognizes 5'-YCAY-3' sequences and plays a fundamental role in central nervous system development by regulating neural network wiring. The protein's function varies depending on binding location: binding to exonic 5'-YCAY-3' clusters blocks U1 snRNP binding and exon inclusion, while binding to intronic clusters enhances spliceosome assembly and exon inclusion. NOVA2 performs unique biological functions in different brain areas and cell types, particularly regulating axon guidance genes during cortical development and contributing to laminar structure development, motor coordination, and synapse formation. The protein is localized to the nucleus where it executes its splicing regulatory functions.