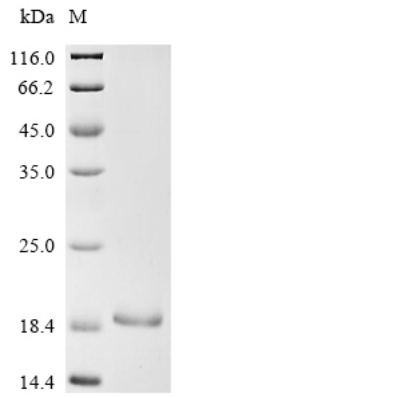
Recombinant Mouse Neuron navigator 3 (Nav3), partial

Product Code	CSB-EP015480MO
Abbreviation	Recombinant Mouse Nav3 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q80TN7
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	EDSKIYTDWANHYLAKSGHKRLIKDLQQDIADGVLLADIIQIIANEKVEDINGCPR SQSQMIENVDVCLSFLAARGVNVQGLSAEEIRNGNLKAILGLFFSLSRYKQ
Research Area	Others
Source	E.coli
Target Names	Nav3
Expression Region	77-184aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	17.9 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant Mouse Neuron navigator 3 (Nav3) gets produced in an E. coli expression system. The protein includes a partial sequence spanning amino acids 77 to 184. An N-terminal 6xHis-tag is attached to help with purification and detection. SDS-PAGE analysis confirms the protein reaches over 85% purity, which appears to ensure reliable performance in research applications.

Neuron navigator 3 (Nav3) is involved in neuronal development and guidance. The protein seems to play a crucial role in signaling pathways that regulate axon guidance and neural circuit formation. This makes it an important focus in neurobiological research. Understanding how Nav3 functions and gets regulated may provide insights into neural network establishment and its implications in developmental neuroscience.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Antibody Development and Validation

This recombinant Nav3 fragment (77-184aa) can work as an immunogen for generating specific antibodies against mouse Nav3 protein. The N-terminal His-tag helps with purification and immobilization during antibody screening assays. Researchers might use this defined protein fragment to develop monoclonal or polyclonal antibodies that specifically recognize this Nav3 region. The purified protein also works in competitive ELISA assays to validate antibody specificity and determine binding affinity.

2. Protein-Protein Interaction Studies

Pull-down assays can make use of the His-tagged Nav3 fragment to identify potential binding partners that interact with this specific protein region. The His-tag allows easy immobilization on nickel-affinity resins, which then capture interacting proteins from cell lysates or purified protein libraries. This approach may help clarify the molecular mechanisms underlying Nav3 function by

mapping protein interactions within the 77-184 amino acid region.

3. Structural and Biochemical Characterization

This recombinant protein fragment appears suitable for biophysical studies aimed at understanding the structural properties of the Nav3 protein region spanning amino acids 77-184. Circular dichroism spectroscopy, dynamic light scattering, or NMR studies can characterize the secondary structure and folding properties of this domain. The high purity (>85%) and defined boundaries likely make it appropriate for detailed biochemical analysis and structure-function relationship studies.

4. ELISA-Based Binding Assays

The His-tagged Nav3 fragment works as either a capture or detection reagent in enzyme-linked immunosorbent assays. These assays can study binding interactions with other proteins, small molecules, or nucleic acids. The His-tag allows oriented immobilization on nickel-coated plates, which ensures consistent protein presentation. This application is particularly useful for screening potential binding partners or investigating the binding kinetics of known interactors with this specific Nav3 region.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.