Recombinant PERI protein (His tag)

Catalog Number	546963
Synonyms	Neurofilament 4
Species	Human
Expression System	E. coli
Accession	P41219
Molecular Weight	Predictes a molecular mass of 39.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	85-404
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 85-404 aa (P41219) 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 Peripherin (Neurofilament 4) Fragment (aa 85-404) is a stable, soluble protein unit designed for structural and biochemical studies. This 320-amino acid fragment retains key characteristics of the full-length protein, offering researchers a reliable tool to investigate neuronal cytoskeleton dynamics and axonal development. Peripherin, encoded by the PRPH gene, is a class-III neuronal intermediate filament protein that contributes to the structural integrity of the cytoskeleton in neurons. It may form an independent filamentous network or cooperate with other neurofilament proteins (NEFL, NEFH, NEFM, and INA) to establish a robust cytoskeletal framework. Functionally, Peripherin plays a critical role in the development of unmyelinated sensory neurons, axon elongation, and regeneration following injury. It is localized primarily in the cytoplasm and cytoskeleton, with specific presence in axons and perikarya, underscoring its importance in neuronal architecture and function. The provided fragment (aa 85-404) was selected computationally to ensure stability and solubility, facilitating experimental applications without compromising biological relevance.