Recombinant HAP1 protein (His tag)

Catalog Number	542415
Synonyms	HAP-1; Neuroan 1
Species	Human
Expression System	E. coli
Accession	P54257
Molecular Weight	Predictes a molecular mass of 24.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	312-504
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 312-504 aa (P54257) 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 Huntingtin-associated protein 1 (HAP-1) fragment (aa 312-504) is a high-purity, stable protein designed for neuroscience and intracellular trafficking research. This soluble fragment retains key structural properties, making it ideal for biochemical assays, structural studies, and investigating HAP-1's role in neuronal transport and neurodegenerative mechanisms. Huntingtin-associated protein 1 (HAP-1) is a neuronal protein that specifically interacts with huntingtin (HTT), with enhanced binding to HTT containing expanded polyglutamine repeats. HAP-1 functions in intracellular trafficking by linking HTT to motor proteins and transport cargos, facilitating vesicular transport within neurons and axons. It plays critical roles in axonal transport of BDNF, GABA(A) receptor delivery to synapses, APP trafficking to reduce amyloid beta production, and autophagosome motility. HAP-1 is implicated in membrane receptor recycling, signal transduction, and formation of cytoplasmic stigmoid bodies (STBs), which may have protective roles in Huntington disease and spinocerebellar ataxia. The protein localizes to multiple subcellular compartments including cytoplasm, axons, presynapses, cytoskeleton, dendritic spines, lysosomes, endoplasmic reticulum, mitochondria, nucleus, autophagosomes, early endosomes, growth cones, and synaptic vesicles.