Recombinant LIS1 protein (His tag)

Catalog Number	544611
Synonyms	Lissencephaly-1 protein; LIS-1; PAF acetylhydrolase 45 kDa subunit; PAF-AH 45 kDa subunit; PAF-AH alpha; PAFAH alpha
Species	Human
Expression System	E. coli
Accession	P43034
Molecular Weight	Predictes a molecular mass of 48.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	1-410
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-410 aa (P43034) 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 PAFAH1B1 (LIS-1) Fragment (aa 1-410) is a high-purity protein designed for studying the regulatory functions of the LisH domain. This product encompasses the full-length beta subunit of cytosolic Platelet-activating factor acetylhydrolase IB, providing researchers with a targeted tool to investigate neuronal migration, microtubule dynamics, and dynein motor regulation. The full-length Platelet-activating factor acetylhydrolase IB subunit beta (PAFAH1B1/LIS-1) serves as a critical regulatory component in multiple cellular processes. As the beta subunit of cytosolic type I PAF acetylhydrolase, it modulates enzyme activity in a catalytic dimer-dependent manner and participates in PAF inactivation. Beyond its enzymatic role, PAFAH1B1 is essential for proper neuronal development, regulating Rho GTPase activation and actin polymerization at the leading edge of migrating neurons. The protein positively regulates dynein motor activity, enhancing microtubule sliding and participating in nucleokinesis during neuronal migration. It localizes to the cytoplasm, cytoskeleton, centrosome, spindle apparatus, and nuclear membrane, redistributing to axons during neuronal development. Mutations in PAFAH1B1 are associated with lissencephaly, highlighting its crucial role in brain development and neuronal positioning.