Recombinant PHAR4 protein (His tag)

Catalog Number	540712
Species	Human
Expression System	E. coli
Accession	Q8IZ21
Molecular Weight	Predictes a molecular mass of 20.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	546-702
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 546-702 aa (Q8IZ21) 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 Phosphatase and actin regulator 4 (PHACTR4) fragment (residues 546-702) from Homo sapiens, designed for structural and biochemical studies. This stable, soluble fragment enables investigation of PHACTR4's role as a key regulator of protein phosphatase 1 (PP1) in neural development and cell migration processes. Phosphatase and actin regulator 4 (PHACTR4) is a crucial developmental regulator in humans that activates protein phosphatase 1 (PP1) by interacting with PPP1CA and preventing its phosphorylation at 'Thr-320'. This activity is essential for neural tube and optic fissure closure during development, where PHACTR4 localizes to the ventral neural tube to down-regulate cell proliferation in cranial neural tissue and the neural retina. Additionally, PHACTR4 facilitates enteric neural crest cell (ENCC) migration by activating PP1, leading to cofilin dephosphorylation/activation and repression of integrin signaling via the RHO/ROCK pathway. The protein is primarily localized in the cytoplasm and cell projections such as lamellipodia, highlighting its role in cellular dynamics and structural organization.