Recombinant SRGP2 protein (His tag)

Catalog Number	546524
Synonyms	srGAP2; Formin-binding protein 2; Rho GTPase-activating protein 34
Species	Human
Expression System	E. coli
Accession	O75044
Molecular Weight	Predictes a molecular mass of 55.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 58 kDa band.

Product Information

Sequence Region	224-692
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 224-692 aa (O75044) 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 SLIT-ROBO Rho GTPase-activating protein 2 (srGAP2) Fragment (aa 224-692) is a high-purity protein designed for studying RAC1 GTPase regulation and neuronal development. This fragment fully encompasses the functional Rho-GAP domain, providing an essential tool for investigating actin dynamics, synapse maturation, and cell migration mechanisms. SLIT-ROBO Rho GTPase-activating protein 2 (SRGAP2) is a crucial postsynaptic regulator in neuronal morphogenesis and cerebral cortex development. As a RAC1-specific GTPase activating protein, it controls excitatory and inhibitory synapse density and maturation through interactions with postsynaptic scaffolding proteins HOMER1 and GPHN. The protein localizes to multiple cellular compartments including the cell membrane, dendritic spines, postsynaptic density, lamellipodia, and nucleus, where it deforms membranes to regulate actin dynamics during cell migration and differentiation. Its role in contact inhibition of locomotion and phagosome recruitment further highlights its importance in cellular navigation and immune functions.