Recombinant SH2D5 protein (His tag)

Catalog Number	550154
Species	Human
Expression System	E. coli
Accession	Q6ZV89
Molecular Weight	Predictes a molecular mass of 19.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-156
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 1-156 aa (Q6ZV89) 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 SH2 domain-containing protein 5 (SH2D5) fragment (amino acids 1-156) from Homo sapiens, encompassing the full PID functional domain. This high-purity protein is an essential tool for investigating synaptic plasticity regulation and Rac-GTP signaling mechanisms in neurological research. The full-length SH2D5 protein is implicated in the regulation of synaptic plasticity, a critical process for learning and memory, through its control of Rac-GTP levels. This function highlights its potential role in modulating neuronal signaling pathways. The protein is localized to the postsynaptic density, a specialized structure at excitatory synapses, where it may influence signal transduction and cytoskeletal organization. The recombinant fragment provided spans residues 1-156, containing the complete PID domain (residues 28-146), enabling focused studies on domain-specific interactions and mechanisms underlying synaptic function.