Recombinant SDK2 protein (His tag)

Catalog Number	547408
Species	Human
Expression System	E. coli
Accession	Q58EX2
Molecular Weight	Predictes a molecular mass of 56.01 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 56 kDa band.

Product Information

Sequence Region	21-517
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 21-517 aa (Q58EX2) 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 Protein Sidekick-2 (SDK2) Fragment (aa 21-517) is a high-purity, biologically active protein designed for studying lamina-specific synaptic connectivity and motion detection circuits in the retina. This fragment encompasses all five Ig-like C2-type domains, making it an ideal tool for investigating homophilic adhesion mechanisms and neuronal circuit formation. Protein Sidekick-2 (SDK2) is a human adhesion molecule critical for establishing specific synaptic connections in the retina, particularly between W3B retinal ganglion cells and VG3 excitatory amacrine cells. These connections form neuronal circuits essential for motion detection. SDK2 functions through homophilic interactions to promote synapse formation and is localized to the cell membrane and synapses as a single-pass type I membrane protein. The full-length protein's role in neural circuit specificity makes it a valuable target for neuroscience and cell adhesion research.