Recombinant DOK7 protein (His tag)

Catalog Number	540390
Synonyms	Downstream of tyrosine kinase 7
Species	Human
Expression System	E. coli
Accession	Q18PE1
Molecular Weight	Predictes a molecular mass of 28.87 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	1-247
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 1-247 aa (Q18PE1) 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 Protein Dok-7 (Downstream of tyrosine kinase 7) Fragment (amino acids 1-247) is a high-purity, functionally relevant protein designed for neuromuscular synaptogenesis and acetylcholine receptor clustering studies. This fragment fully encompasses the PH and IRS-type PTB domains, making it an ideal tool for domain-specific functional investigations. Protein Dok-7 (UniProt ID: Q18PE1) is a muscle-intrinsic activator of MUSK (muscle-specific kinase) essential for neuromuscular synaptogenesis. It functions in aneural activation of MUSK, inducing its autophosphorylation and subsequent clustering of acetylcholine receptors (AChR) in myotubes. The protein localizes to the cell membrane as a peripheral membrane protein and accumulates specifically at neuromuscular junctions, highlighting its critical role in synapse formation and maintenance. This recombinant fragment preserves key functional domains to support targeted research on these mechanisms.