Recombinant TWF1 protein (His tag)

Catalog Number	540216
Synonyms	Protein A6; Protein tyrosine kinase 9
Species	Human
Expression System	E. coli
Accession	Q12792
Molecular Weight	Predictes a molecular mass of 38.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	2-315
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 2-315 aa (Q12792) 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 Twinfilin-1 (TWF1) Fragment (aa 2-315) is a high-purity protein designed for studying actin dynamics and cytoskeletal regulation. This fragment encompasses the critical ADF-H domains 1 and 2, making it an ideal tool for investigating actin polymerization inhibition, barbed-end capping, and roles in cellular processes like endocytosis. Twinfilin-1, encoded by the TWF1 gene (UniProt ID: Q12792), is an actin-binding protein that plays a key role in motile and morphological cellular processes. It inhibits actin polymerization, likely by sequestering G-actin, and regulates motility through barbed-end capping of filaments. The protein is implicated in clathrin-mediated endocytosis and the distribution of endocytic organelles. Subcellularly, it localizes to the cytoplasm and cytoskeleton, with enrichment in perinuclear regions, cortical actin structures, membrane ruffles, and cell-cell contacts, highlighting its involvement in dynamic actin-dependent cellular functions.