Human TWF1 / PTK9 / Twinfilin-1 Protein (His & GST Tag)

Catalog Number: **11829-H20E**

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Biological Solution Specialist

General Information

Gene Name Synonym:

A6; MGC23788; MGC41876; PTK9; A6; Ptk9; twinfilin

Protein Construction:

A DNA sequence encoding the human TWF1 isoform 4 (Q12792-4) (Met 1-Asp 252) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 84 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human TWF1/GST chimera consists of 494 amino acids and has a calculated molecular mass of 57 kDa. It migrates as an approximately 50 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 500mM NaCl, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

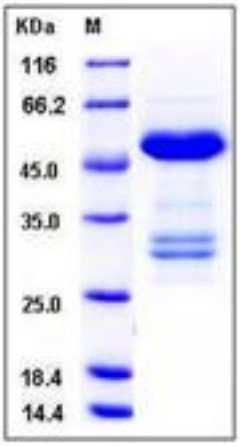
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Twinfilin-1, also known as Protein A6, Protein tyrosine kinase 9, TWF1 and PTK9, is a cytoplasm protein which belongs to the actin-binding proteins ADF family and Twinfilin subfamily. Twinfilin-1 (TWF1 / PTK9) is a highly conserved actin monomer-binding protein that regulates cytoskeletal dynamics in organisms from yeast to mammals. In addition to the mammalian twinfilin-1, a second protein with approximately 65% sequence identity to twinfilin-1 exists in mouse and humans. TWF1 / PTK9 is expressed at high levels in the colon, testis, ovary, prostate and lung. It is expressed at lower levels in the brain, bladder and heart. It is not detected in liver. TWF1 / PTK9 is an actin-binding protein involved in motile and morphological processes. It inhibits actin polymerization, likely by sequestering G-actin. By capping the barbed ends of filaments, it also regulates motility. TWF1 / PTK9 seems to play an important role in clathrin-mediated endocytosis and distribution of endocytic organelles.

References

1.Beeler JF, et al.,1994, Mol Cell Biol 14 (2): 982-8.
2.Palmgren S, et al., 2002, J. Cell. Sci. 115 (Pt 5): 881-6.
3.Vartiainen MK, et al.,2003, J. Biol. Chem. 278 (36): 34347-55.