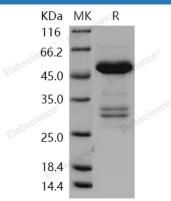
## Recombinant Human TWF1/Twinfilin-1 Protein (His &GST Tag)

## Catalog Number: PKSH030992

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	E.coli-derived Human TWF1/Twinfilin-1 protein Met 1-Asp 252, with an N-terminal
	His & GST
Calculated MW	57.0 kDa
Observed MW	50 kDa
Accession	Q12792-4
Bio-activity	Not validated for activity
Properties	
Purity	> 84 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 500mM NaCl, pH 8.0
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 84 % as determined by reducing SDS-PAGE.

Background

## **Elabscience**®

Twinfilin-1; also known as Protein A6; Protein tyrosine kinase 9; TWF1 and PTK9; is a cytoplasm protein which belongs to theactin-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.