Data Sheet (Cat.No.TMPY-03657)

TargetMol

Profilin 2 Protein, Human, Recombinant (His)

General Information

Synonyms:	profilin 2;PFL;D3S1319E
Protein Construction:	A DNA sequence encoding the human PFN2 (AAH18049.1) (Met1-Phe140) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	P35080
Molecular Weight:	16.9 kDa (predicted); 16 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 10% Glycerol, pH 8.0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Profilin 2, also known as PFN2, is a ubiquitous actin monomer-binding protein belonging to the profilin family. It is highly expressed in brain, skeletal muscle and kidney and less strongly in heart, placenta, lung and liver. Profilin 2 binds to actin and affects the structure of the cytoskeleton. At high concentrations, profilin prevents the polymerization of actin, whereas it enhances it at low concentrations. Profilin 2 is thought to regulate actin polymerization in response to extracellular signals. It inhibits the formation of IP3 and DG by binding to PIP2.

Reference

Da Silva. et al., 2003, J Cell Biol. 162 (7): 1267-79.
Honore B. et al., 1993, FEBS Lett. 330 (2): 151-5.
Joensuu T. et al., 1997, Genomics. 38 (3): 255-63.

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