Data Sheet (Cat.No.TMPY-03453)

TargetMol

Pleckstrin Protein, Human, Recombinant (His)

General Information

Synonyms:	pleckstrin;P47
Protein Construction:	A DNA sequence encoding the mature form of human PLEK (XP_004029394.1) (Met1-Lys350) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	A0A2I2ZIG5
Molecular Weight:	41.9 kDa (predicted); 45 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:	> 95 % 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

Pleckstrin is a protein found in platelets. Pleckstrin is the source of the name pleckstrin homology domain. Pleckstrin homology domain (PH domain) is a protein domain of approximately 12 amino acids that occurs in a wide range of proteins involved in intracellular signaling or as constituents of the cytoskeleton. This domain can bind Phosphatidylinositol lipids within biological membranes (such as Phosphatidylinositol (3,4,5)-trisphosphate and phosphatidylinositol (4,5)-bisphosphate), and proteins such as the βγ-subunits of heterotrimeric G proteins,

and protein kinase C. Through these interactions, PH domains play a role in recruiting proteins to different membranes, thus targeting them to appropriate cellular compartments or enabling them to interact with other components of the signal transduction pathways.

Reference

Ingley E, et al. (1994) Pleckstrin homology (PH) domains in signal transduction. J Cell Biochem. 56(4):436-43.
Gibson TJ, et al. (1994) PH domain: the first anniversary. Trends Biochem Sci. 19(9):349-53.
Haslam RJ, et al. (1993) Pleckstrin domain homology. Nature. 363(6427):309-10.

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