Data Sheet (Cat.No.TMPY-03444)

TargetMol

PFDN4 Protein, Human, Recombinant (His)

General Information

Synonyms: PFD4;prefoldin subunit 4;C1

Protein Construction: A DNA sequence encoding the mature form of human PFDN4 (Q9NQP4) (Met1-Ser134) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His

Species: Human

Expression Host: E. coli

Accession: Q9NQP4

Molecular Weight: 17.2 kDa (predicted); 18 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: > 80 % 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 PBS, 5% Glycerol, pH 7.4. 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:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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

PFDN4 is a member of the prefoldin beta subunit family. It is one of six subunits of prefoldin, a molecular chaperone complex that binds and stabilizes newly synthesized polypeptides, thereby allowing them to fold correctly. The complex, consisting of two alpha and four beta subunits, forms a double beta barrel assembly with six protruding coiled-coils. PFDN4 binds specifically to cytosolic chaperonin (c-CPN) and transfers target proteins to it. PFDN4 also binds to nascent polypeptide chain and promotes folding in an environment in which there are

many competing pathways for nonnative proteins.

Reference

Iijima M, et al. (1996) Cloning of cDNA with possible transcription factor activity at the G1-S phase transition in human fibroblast cell lines. Acta Med Okayama. 50(2):73-7.
Hartl FU, et al. (2002) Molecular chaperones in the cytosol: from nascent chain to folded protein. Science. 295 (5561):1852-8.
Vainberg I, et al. (1998) Prefoldin, a chaperone that delivers unfolded proteins to cytosolic chaperonin. Cell. 93(5): 863-73.

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