Data Sheet (Cat.No.TMPH-00443)

TargetMol

P4HB Protein, Cricetulus griseus, Recombinant (His)

General Information

Synonyms: PDIA1;Protein disulfide-isomerase;P4HB;Prolyl 4-hydroxylase subunit beta;PDI;p58

Protein Construction: 20-509 aa

Species: Chinese hamster

Expression Host: P. pastoris (Yeast)

Accession: Q8R4U2

Molecular Weight: 57.0 kDa (predicted)

AA Sequence: DAPEEEDNVLVLKKSNFAEALAAHNYLLVEFYAPWCGHCKALAPEYAKAAAKLKAEGSEIRLAKVDATEESD LAQQYGVRGYPTIKFFKNGDTASPKEYTAGREADDIVNWLKKRTGPAATTLSDTAAAETLIDSSEVAVIGFFKD VESDSAKQFLLAAEAVDDIPFGITSNSGVFSKYQLDKDGVVLFKKFDEGRNNFEGEVTKEKLLDFIKHNQLPLV IEFTEQTAPKIFGGEIKTHILLFLPKSVSDYDGKLGNFKKAAEGFKGKILFIFIDSDHTDNQRILEFFGLKKEECPAV RLITLEEEMTKYKPESDELTAEKITEFCHRFLEGKIKPHLMSQELPEDWDKQPVKVLVGKNFEEVAFDEKKNVF VEFYAPWCGHCKQLAPIWDKLGETYKDHENIIIAKMDSTANEVEAVKVHSFPTLKFFPATADRTVIDYNGERTL DGFKKFLESGGQDGAGDDDDVDLEEALEPDMEEDDDQKAVKDEL

QC Testing

Biological Activity: Activity has not been tested. 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: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Tris-based buffer, 50% glycerol

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:

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

This multifunctional protein catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. May therefore cause structural modifications of exofacial proteins. Inside the cell, seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, facilitates aggregation (anti-chaperone activity). May be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. Also acts a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP. Receptor for LGALS9; the interaction retains P4HB at the cell surface of Th2 T helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481