Data Sheet (Cat.No.TMPY-03986)

TargetMol

PIST Protein, Human, Recombinant (His)

General Information

Synonyms:	CAL;dJ94G16.2;golgi-associated PDZ and coiled-coil motif containing;FIG;PIST;GOPC1
Protein Construction:	A DNA sequence encoding the human GOPC (Q9HD26-1) (Ile286-Tyr462) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	Q9HD26-1
Molecular Weight:	21.1 kDa (predicted); 25-30 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 PBS, 10% 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:

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

GOPC, also known as PIST, interacts specifically with TC1 (a Rho-family small GTPase)] as a binding partner for Rhotekin. Rhotekin associates with PIST in vitro and both polarized and non-polarized MDCK (Madin-Darby canine kidney) cells. The C-terminal SPV (Ser-Pro-Val) motif of Rhotekin binds to the PDZ domain of PIST. The co-localization of PIST and Rhotekin at the Golgi apparatus can be detected in non-polarized fibroblast-like MDCK cells and AJs (adherens junctions) in the fully polarized cells. PIST and Rhotekin are recruited from the cytosol to

AJs as the cell becomes polarized. Expression of constitutively active Rho or prevention of Rhotekin-PIST interaction induced diffuse cytoplasmic distribution of Rhotekin in polarized MDCK cells. GOPC may regulate CFTR chloride currents and acid-induced ACCN3 currents by modulating cell surface expression of both channels. It may also regulate the intracellular trafficking of the ADR1B receptor. GOPC is ubiquitously expressed and its overexpression results in CFTR intracellular retention and degradation in the lysosomes.

Reference

Hicks SW. et al., 2005, J Biol Chem. 280 (32): 28944-51.
Ito H. et al., 2006, Biochem J Aug. 397 (3): 389-98.
Amin N. et al., 2012, Mol Psychiatry. 17 (11): 1116-29.

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