

Human GOPC / PIST Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 14911-H07E

General Information

Gene Name Synonym:

CAL; dJ94G16.2; FIG; GOPC1; PIST

Protein Construction:

A DNA sequence encoding the human GOPC (Q9HD26-1) (Ile286-Tyr462) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human GOPC consists of 192 amino acids and predicts a molecular mass of 21.1 KDa. It migrates as an approximately 25-30 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 10% Glycerol, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

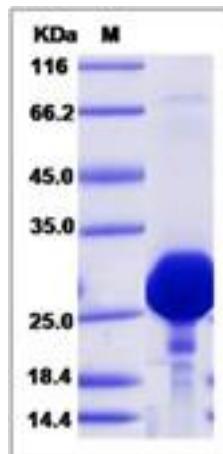
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

GOPC, also known as PIST, interacts specifically with TC10 (a Rho-family small GTPase) as a binding partner for Rhotekin. Rhotekin associates with PIST in vitro and in 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.

References

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

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