Data Sheet (Cat.No.TMPY-03835)

TargetMol

CDCP1 Protein, Rhesus, Recombinant (His)

General Information

Synonyms: CUB domain containing protein 1

Protein Construction: A DNA sequence encoding the rhesus CDCP1 (XP_001114659.1) (Met1-Thr667) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Phe 30

Species: Rhesus

Expression Host: HEK293 Cells

Accession: F6TPM5

Molecular Weight: 73.4 kDa (predicted)

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: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, 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

CDCP1 contains three extracellular CUB domains. It is a putative stem cell marker that is highly expressed in some human cancer cells and both, typical and atypical (cancerous) colons. It interacts with CDH2/N-cadherin, CDH3/P-cadherin, SDC1/syndecan-1, SDC4/syndecan-4 and the serine protease ST14/MT-SP1. It also interacts with SRC and PRKCG/protein kinase C gamma. CDCP1 is taken as a key regulator of EGF/EGFR-induced cell migration. It has been shown that signaling via EGF/EGFR induces migration of ovarian cancer Caov3 and OVCA420 cells with

concomitant up-regulation of CDCP1 mRNA and protein. Consistent with a role in cell migration CDCP1 relocates from cell-cell junctions to punctate structures on filopodia after activation of EGFR. It may be involved in cell adhesion and cell matrix association. It also may play a role in the regulation of anchorage versus migration or proliferation versus differentiation via its phosphorylation. It has been taken as a novel marker for leukemia diagnosis and immature hematopoietic stem cell subsets.

Reference

Conze T, et al. (2003) CDCP1 is a novel marker for hematopoietic stem cells. Ann N Y Acad Sci. 996 (1): 222-6.
Hooper JD, et al. (2003) Subtractive immunization using highly metastatic human tumor cells identifies SIMA135/CDCP1, a 135 kDa cell surface phosphorylated glycoprotein antigen. Oncogene. 22(12): 1783-94.
Scherl-Mostageer M, et al. (2001) Identification of a novel gene, CDCP1, overexpressed in human colorectal cancer. Oncogene. 20(32):4402-8.