

## CDCP1 Protein, Mouse, Recombinant (His & Avi), Biotinylated

### General Information

Synonyms:	UNQ2486;TRASK;CD318;SIMA135;CDCP1;PRO5773
Protein Construction:	Arg25-Ala667
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q5U462
Molecular Weight:	75.3 kDa (predicted). Due to glycosylation, the protein migrates to 80-100 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Anti-CDCP1 Antibody captured on CM5 Chip via Protein A can bind Biotinylated Mouse CDCP-1, His Tag with an affinity constant of 0.45 $\mu$ M as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### 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

Tumor metastasis depends on the dynamic regulation of cell adhesion through  $\beta$ 1-integrin. The Cub-Domain Containing Protein-1, CDCP1, is a transmembrane glycoprotein which regulates cell adhesion. Overexpression and loss of CDCP1 have been observed in the same cancer types to promote metastatic progression.

Reference

Wright HJ, et al. CDCP1 drives triple-negative breast cancer metastasis through reduction of lipid-droplet abundance and stimulation of fatty acid oxidation. Proc Natl Acad Sci U S A. 2017 Aug 8;114(32):E6556-E6565. doi: 10.1073/pnas.1703791114. Epub 2017 Jul 24. PMID: 28739932; PMCID: PMC5559020.

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