Recombinant Mouse CDCP1

Catalog Number: 9688-CU

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Arg25-Ala667, with a C-terminal 6-His tag Accession # Q5U462
N-terminal Sequence Analysis	Arg25 & Ser30
Predicted Molecular Mass	73 kDa

SPECIFICATIONS

SDS-PAGE	90-108 kDa, reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity not tested

The Innovator Series. R&D Systems proteins are almost always sold with a bioassay to indicate activity. However, we recognize that sometimes proteins might be novel, and their bioactivity may not be well understood. In addition, some researchers may wish to use polypeptides to make antibodies. To facilitate the advancement of new science, we now offer our Innovator Series of proteins.

BACKGROUND

CDCP1 (CUB-domain containing protein 1; also known as CD318 and SIMA135) is a novel, 135 kDa cell surface glycoprotein that is found on tumor, stem cells, keratinocytes and colonic epithelial cells (1). It is reported that this protein is over-expressed in colon and lung cancers. CDCP1 is a type I transmembrane (TM) protein that is involved with cell adhesion. Mouse CDCP1 is synthesized as an 833 amino acid (aa) precursor. It contains an extracellular region with three CUB domains (aa 30-667) and a phosphotyrosine site at Tyr731. The phosphorylation state of CDCP-1 has an effect on anchorage in epithelial cells (2). When unligated, CDCP1 can be proteolytically cleaved between aa 270-300. This generates an 80 kDa TM protein that may be missing the N-terminal CUB domain (aa 221-350) (3). Over aa 25-667, mouse CDCP1 is 83% and 92% aa identical to human and rat CDCP1, respectively.

References:

1. Hooper, J.D. *et al.* (2003) Oncogene **22**:1783.
2. Spassov, D.S. *et al.* (2013) Cancer Res. **73**:1168.
3. He, Y. *et al.* (2010) J. Biol. Chem. **285**:26162.

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