

Product Datasheet

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Anti-Human/Mouse CDCP1 (CD318) Purified *in vivo* GOLD™ Functional Grade Monoclonal Antibody

Product Information

Product No.: C9100
Clone: 9A2
RRID: AB_2829876
Isotype: Mouse IgG2b κ
Storage: Sterile 2-8°C

Product Description

Specificity:

Clone 9A2 recognizes an epitope within the extracellular domain of human/mouse CDCP1.

Antigen Distribution:

CDCP1 is widely expressed in the esophagus, skin, colon, duodenum, stomach and other tissues.

Background:

CDCP1 is a transmembrane glycoprotein of molecular weight 140 kDa. CDCP1 is a ligand for a receptor molecule (CD6) that is expressed on some T-cells and is thought to be involved in T-cell migration and chemotaxis. It has a large extracellular domain that includes two CUB domains, and a smaller intracellular domain. The smaller intracellular domain contains five tyrosine residues (Y707, Y734, Y743, Y762 and Y806). CDCP1 is cleaved next to Arg368 (at the extracellular domain) by serine proteases. This cleavage yields a truncated molecule with a molecular weight of 80 kDa.¹ CDCP1 is not typically cleaved *in vivo*. However, its cleavage can be induced during tumorigenesis or tissue injury.² CDCP1 acts as a substrate for Src family kinases which exclusively mediate the phosphorylation of CDCP1. In cultured cells, tyrosine phosphorylation of CDCP1 transpires when cells are stimulated to detach via trypsin or EDTA. This detachment is associated with the phosphorylation of CDCP1 along with the simultaneous dephosphorylation of focal adhesion proteins. Conversely, during cellular attachment, CDCP1 is dephosphorylated, while focal adhesion proteins are simultaneously phosphorylated. Furthermore, CDCP1 is suspected to play a role in autoimmune diseases such as encephalomyelitis, multiple sclerosis and inflammatory arthritis.³

Known Reactivity Species:

Human, Mouse

Format:

in vivo GOLD™, Purified *in vivo* Functional Grade

Immunogen:

His-tagged recombinant fragment from the internal region of human CUB domain-containing protein 1

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin

< 1.0 EU/mg as determined by the LAL method

Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

410 Axminister Dr, St. Louis, MO 63026

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Product Preparation

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for this 9A2 antibody for staining cells in flow cytometry is 1 µg per 10⁶ cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.

Country of Origin

USA

References

1. Moasser, MM. *et al.* (2005) *Oncogene*. **24**(34):5333-43.
2. Moasser, MM. *et al.* (2013) *Cancer Res.* **73**(3):1168-79.
3. Lin, F. *et al.* (2017) *Proc Natl Acad Sci U S A.* **114**(33):E6912-21.

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