

Mouse ADAM15 / MDC15 Protein (His Tag)

Catalog Number: 51001-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

MDC15, metargidin

Protein Construction:

A DNA sequence encoding the mouse ADAM15 (O88839-1) extracellular domain (Met 1-Thr 697) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its ability to bind human PTK6 in a functional ELISA.
2. Measured by its ability to bind human SRC in a functional ELISA.
3. Measured by its ability to bind mouse SRC in a functional ELISA.
4. Measured by its ability to bind human LYN in a functional ELISA.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Arg 18 & Asp 208

Molecular Mass:

The secreted recombinant mouse ADAM15 (pro form) comprises 691 amino acids and has a calculated molecular mass of 74.6 kDa. As a result of glycosylation, the apparent molecular mass of the recombinant protein is approximately 80-90 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

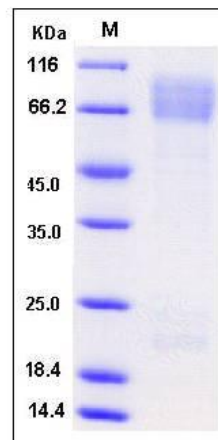
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

The adamalysin (ADAM) metalloproteinase disintegrins, also known as metalloprotease/disintegrin/cysteine-rich proteins, are a branch of the metzincin metalloproteinase superfamily that are related to snake venom metalloproteinases and integrin ligands. Human ADAM15 was first named metargidin, and uniquely, it carries an RGD binding motif in a position similar to that in snake venom disintegrins. ADAM15 is widely expressed in various tissues and cells, including human umbilical vein endothelial cells and smooth muscle cells, and its expression can be driven by Vascular endothelial (VE)-cadherin. Overexpression of ADAM15 in NIH3T3 cells appears to enhance cell-cell interactions, as suggested by decreased cell migration, altered cell morphology at the wound edge, decreased monolayer permeability, and increased cell adhesion to monolayers of cells expressing ADAM15 by retroviral transduction. ADAM15 plays a physiological role as a natural binding partner of integrin $\alpha v \beta 3$ thereby loosening tumor cell adhesion to the underlying matrix and regulating tumor cell migration and invasion, and functional interplay between ADAM15 and Src family PTKs may contribute to signaling in hematopoietic cells. Also, ADAM15 is believed to interact with integrins $\alpha v \beta 3$, $\alpha 5 \beta 1$, and $\alpha 9 \beta 1$ through its disintegrin domain. ADAM15 has been shown to degrade collagens I and IV and to cleave the inflammatory cytokine CD23, thus influence ECM remodeling within rheumatoid synovial tissues and in atherosclerosis. The high expression levels of ADAM15 correlated with advanced metastatic diseases, and a clear association with clinical parameters was determined.

References

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>