

Mouse ASAM / CLMP Protein (His Tag)

Catalog Number: 50553-M08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

9030425E11Rik; ACAM; ASP5; AW557819

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse ASAM (Q8R373-1) (Met 1-Met 232) was expressed, with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of the HUVEC human umbilical vein endothelial cell line. When 4×10^4 cells/well are added to mouse ASAM coated plates (30 µg/ml, 100 µl/well), approximately >40 % will adhere after one hour at 37 °C.

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: Thr 18

Molecular Mass:

The recombinant mouse ASAM consists of 226 amino acids and has a predicted molecular mass of 25.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rm ASAM is approximately 33-36 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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:

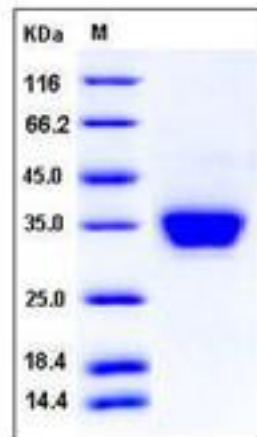
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Adipocyte-specific adhesion molecule (ASAM), also known as ACAM and CLMP, is a type I transmembrane protein and a member of the CTX (cortical thymocyte marker in Xenopus) family within the immunoglobulin superfamily. ASAM protein is highly expressed in the small intestine and placenta, and is found at intermediate levels in the heart, skeletal muscle, colon, spleen, kidney, and lung, and appears in low levels in the liver and peripheral blood leukocytes as well. ASAM is a transmembrane component of tight junctions in epithelial cells that can mediate cell aggregation and regulate transepithelial resistance across polarized epithelial cells. In addition, its expression is strongly correlated with white adipose tissue (WAT) mass of human and rodents with obesity.

References

1. Eguchi J, *et al.* (2005) Identification of adipocyte adhesion molecule (ACAM), a novel CTX gene family, implicated in adipocyte maturation and development of obesity. *Biochem J.* 387(Pt 2): 343-53.
2. Sze KL, *et al.* (2008) Expression of CLMP, a novel tight junction protein, is mediated via the interaction of GATA with the Kruppel family proteins, KLF4 and Sp1, in mouse TM4 Sertoli cells. *J Cell Physiol.* 214(2): 334-44.
3. Sze KL, *et al.* (2008) Post-transcriptional regulation of CLMP mRNA is controlled by tristetraprolin in response to TNFalpha via c-Jun N-terminal kinase signalling. *Biochem J.* 410(3): 575-83.

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