Rat ASAM / CLMP Protein (His Tag)

Catalog Number: **80219-R08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CLMP

Protein Construction:

A DNA sequence encoding the rat ASAM (Q8K1G0) (Met1-Met232) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of MS-1 cells. When 5 x 10^4 cells/well are added to Recombinant Rat ASAM coated plates (12.5 μg/mL with 100 μL/well), 35-70% cells will adhere after 1 hour incubation at 37℃.

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 ℃

Predicted N terminal: Thr 18

Molecular Mass:

The recombinant rat ASAM comprises 226 amino acids and predicts a molecular mass of 25.6 kDa. The apparent molecular mass of the recombinant protein is approximately 37 kDa in SDS-PAGE under reducing conditions 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:

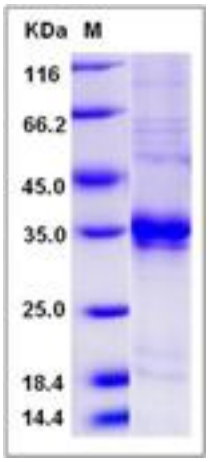
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.