Data Sheet (Cat.No.TMPY-01698)

TargetMol

ASAM Protein, Mouse, Recombinant (His)

General Information

Synonyms:	ACAM;AW557819;CXADR-like membrane protein;9030425E11Rik;ASP5
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. Predicted N terminal: Thr 18
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8R373-1
Molecular Weight:	25.6 kDa (predicted); 33-36 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by the ability of the immobilized protein to support the adhesion of the HUVEC human umbilical vein endothelial cell line. When 4 x 10E4 cells/well are added to mouse ASAM coated plates (30 μg/ml, 100 μl/well), approximately >40 % will adhere after one hour at 37 ℃.
Purity:	≥ 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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.

Reference

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.
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.
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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