

# Human CRTAM Protein (His Tag)

Catalog Number: 11975-H08H



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD355

### Protein Construction:

A DNA sequence encoding the human CRTAM (NP\_062550.2) extracellular domain (Met 1-Ser 286) was expressed, with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 94 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its binding ability in a functional ELISA . Immobilized human CADM1 at 2 µg/ml (100 µl/well) can bind biotinylated human CRTAM with a linear range of 12.5-400 ng/ml.**

### 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:** Ser 18

### Molecular Mass:

The recombinant human CRTAM consists of 280 amino acids and predicts a molecular mass of 31.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCRTAM is approximately 50-60 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:

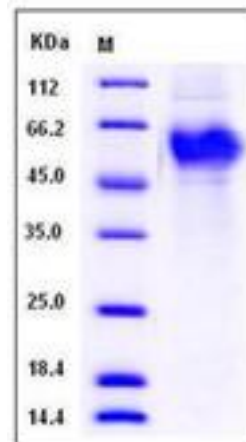
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Cytotoxic and regulatory T-cell molecule, also known as Class-I MHC-restricted T-cell-associated molecule and CRTAM, is a single-pass type I membrane protein which belongs to the nectin family. CRTAM contains one Ig-like C2-type (immunoglobulin-like) domain and one Ig-like V-type (immunoglobulin-like) domain. In the immune system, the expression of CRTAM is restricted to activated class-I MHC-restricted cells, including NKT and CD8 cells. It is strongly expressed in spleen, thymus, small intestine, peripheral blood leukocyte, and in purkinje neurons in cerebellum. It is expressed at much lower levels in testis, ovary, colon, lung and lymphoid tissues. CRTAM is a member of the immunoglobulin superfamily that complies with the structural characteristics of the JAM family of proteins and is phylogenetically more closely related to nectin-like proteins. It is a molecule involved in epithelial cell adhesion. CRTAM is sensitive to intermediate filament disruption and treatment of monolayers with soluble CRTAM enhances cell-cell dissociation and lowers transepithelial electrical resistance. CRTAM may also induce retention by binding to CD8+ dendritic cells (DCs) at the late stage of activation before proliferation.

## References

- 1.Garay, E. et al., 2010, J Cell Biochem. 111 (1):111-22.
- 2.Medina-C.O. et al., 2010, Dev Comp Immunol. 34 (2):196-202.
- 3.Takeuchi, A. et al., 2009, J Immunol.183 (7):4220-8.

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