

**Synonym**

CRTAM,CD355

**Source**

Human CRTAM, His Tag (CRM-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ser 18 - Gly 287 (Accession # O95727-1).

Predicted N-terminus: Ser 18

**Molecular Characterization**

CRTAM(Ser 18 - Gly 287)  
O95727-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 31.9 kDa. The protein migrates as 45-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

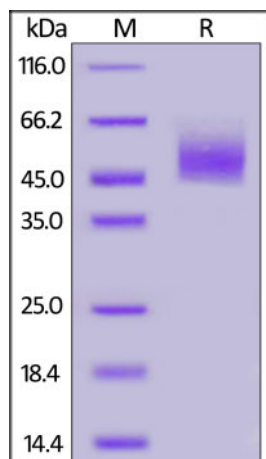
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

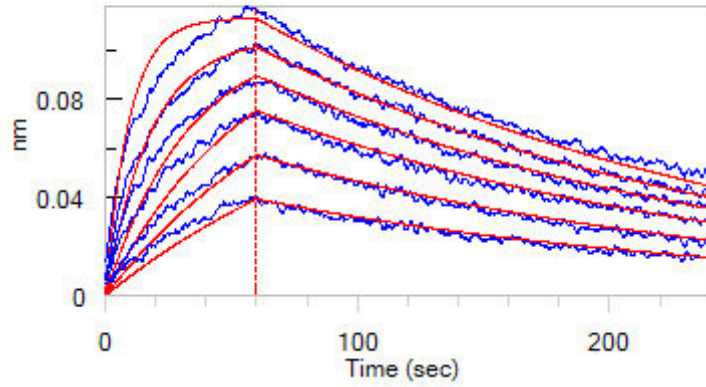
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human CRTAM, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-BLI**



Loaded Human CRTAM, His Tag (Cat. No. CRM-H52H3) on AR2G Biosensor, can bind Human CADM1, His Tag (Cat. No. CA1-H5225) with an affinity constant of 51.1 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Background

Class I-restricted T cell-associated molecule (CRTAM), a member of nectin family and the immunoglobulin superfamily, is also known as cytotoxic and regulatory T-cell molecule, which is expressed by activated CD8<sup>+</sup> and NK T cells. CRTAM is found in spleen, thymus, small intestine, peripheral blood, and surprisingly, in brain where it is highly expressed by Purkinje cells of the cerebellum. The high affinity of CRTAM/IGSF4 adhesion allows CRTAM to disrupt IGSF4 homotypic interactions (3 - 5). IGSF4 and T cell receptor co-engagement of CRTAM-expressing CD8<sup>+</sup> cells induces increased IFN-gamma or IL-22 production (3, 4). Furthermore, a role in cancer surveillance through NK cell-mediated rejection of IGSF4-expressing tumors has been proposed.

### References

(1) [Arase N., et al., 2005, Int. Immunol. 17:1227.](#)

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.