

**Synonym**

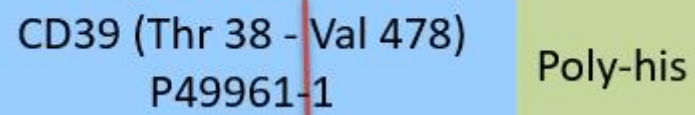
CD39,ENTPD1,NTPDase 1,Entpd1,Ecto-ATPDase 1,Ecto-ATPase 1

**Source**

Human CD39 (Q96A, N99A, E143A, R147E) Protein, His Tag(CD9-H52H5) is expressed from human 293 cells (HEK293). It contains AA Thr 38 - Val 478 (Accession # [P49961-1](#) (Q96A, N99A, E143A, R147E)).

**Molecular Characterization**

Q96A, N99A, E143A, R147E



This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 52.1 kDa. The protein migrates as 60-70 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Supplied as 0.2 µm filtered solution in 20 mM Tris,150 mM NaCl,pH8.0 with trehalose as protectant.

Contact us for customized product form or formulation.

**Shipping**

*This product is supplied and shipped as sterile liquid solution with dry ice, please inquire the shipping cost.*

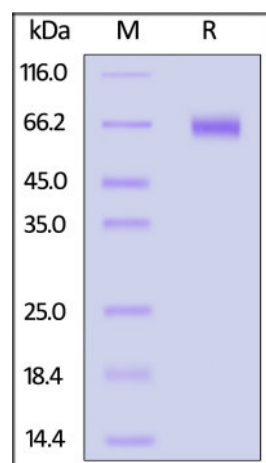
**Storage**

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

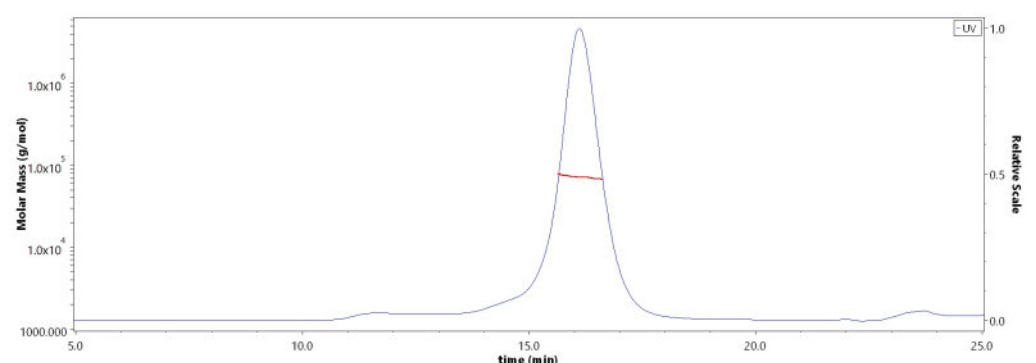
*Please avoid repeated freeze-thaw cycles.*

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**

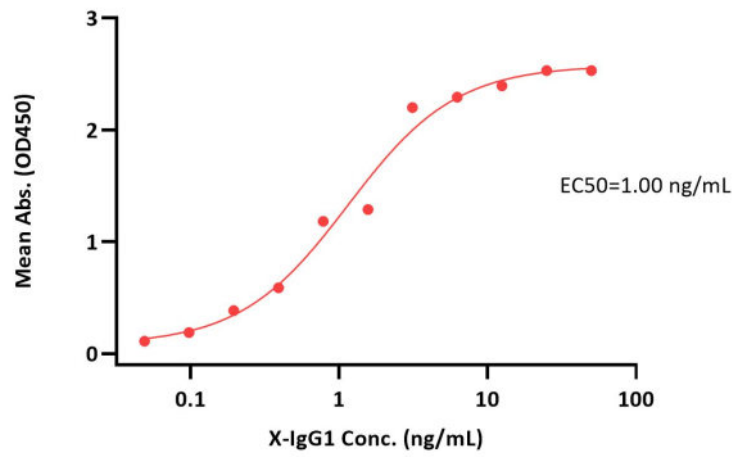
Human CD39 (Q96A, N99A, E143A, R147E) Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA****SEC-MALS**

The purity of Human CD39 (Q96A, N99A, E143A, R147E) Protein, His Tag (Cat. No. CD9-H52H5) is more than 90% and the molecular weight of this protein is around 65-85 kDa verified by SEC-MALS.

[Report](#)

Human CD39 / ENTPD1 (Q96A, N99A, E143A, R147E), His Tag ELISA  
0.1 µg of Human CD39 / ENTPD1 (Q96A, N99A, E143A, R147E), His Tag per well



Immobilized Human CD39 / ENTPD1 (Q96A, N99A, E143A, R147E), His Tag (Cat. No. CD9-H52H5) at 1 µg/mL (100 µL/well) can bind X-IgG1 with a linear range of 0.5-3 ng/mL (Routinely tested).

### Bioactivity

Measured by its ability to hydrolyze the 5'-phosphate group from the substrate adenosine-5'-triphosphate (ATP). The specific activity is > 8,000 pmol/min/µg (QC tested).

### Background

CD39 is also known as Ectonucleoside triphosphate diphosphohydrolase 1, ENTPD1, NTPDase 1, Ecto-ATPDase 1, in the nervous system, could hydrolyze ATP and other nucleotides to regulate purinergic neurotransmission. Could also be implicated in the prevention of platelet aggregation by hydrolyzing platelet-activating ADP to AMP. Hydrolyzes ATP and ADP equally well. NTPDase-1 was originally described as CD39, a B lymphocyte cell surface marker, but it is also present on the surface of natural killer cells, T cells, and some endothelial cells. Regulatory T cells (Tregs) mediate immunosuppression through multiple, non-redundant, cell-contact dependent and independent mechanisms, a growing body of evidence suggests an important role for the CD39-CD73-adenosine pathway. CD39 ectonucleotidase is the rate-limiting enzyme of a cascade leading to the generation of suppressive adenosine that alters CD4 and CD8 T cell and natural killer cell antitumor activities.

### Clinical and Translational Updates

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