

**Synonym**

CD73,NT5E,5'-Nucleotidase,5'-NT,NT5,NTE

**Source**

Sus scrofa CD73, His Tag (CD3-S52H3) is expressed from human 293 cells (HEK293). It contains AA Trp 27 - Ser 549 (Accession # [XP\\_001927130.1](#)).

Predicted N-terminus: Trp 27

**Molecular Characterization**

CD73(Trp 27 - Ser 549)  
XP\_001927130.1 Poly-his

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

The protein has a calculated MW of 59.5 kDa. The protein migrates as 60-65 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**

Lyophilized from 0.22 µm filtered solution in 20 mM Tris, 120 mM NaCl, pH7.5. 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.*

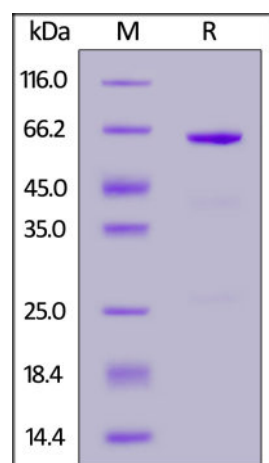
**Storage**

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:

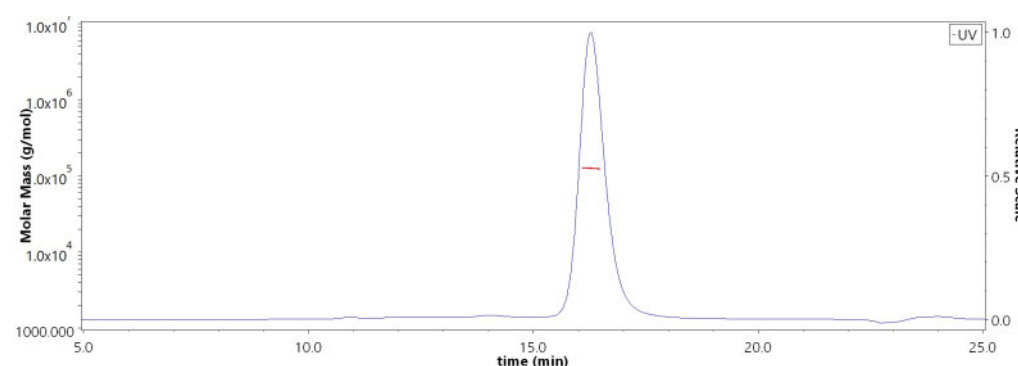
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Sus scrofa CD73, 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**

Measured by its ability to hydrolyze the 5'-phosphate group from the substrate adenosine-5'-monophosphate (AMP). The specific activity is > 50000 pmol/min/µg (QC tested).

**SEC-MALS**

The purity of Sus scrofa CD73, His Tag (Cat. No. CD3-S52H3) is more than 90% and the molecular weight of this protein is around 112-136 kDa verified by SEC-MALS.

[Report](#)

## **Background**

5'-nucleotidase (5'-NT), also known as ecto-5'-nucleotidase or CD73 (cluster of differentiation 73), is an enzyme that is encoded by the NT5E gene. CD73 commonly serves to convert AMP to adenosine. Ecto-5-prime-nucleotidase (5-prime-ribonucleotide phosphohydrolase) catalyzes the conversion at neutral pH of purine 5-prime mononucleotides to nucleosides, the preferred substrate being AMP. Other forms of 5-prime nucleotidase exist in the cytoplasm and lysosomes and can be distinguished from ecto-NT5 by their substrate affinities, requirement for divalent magnesium ion, activation by ATP, and inhibition by inorganic phosphate. Rare allelic variants are associated with a syndrome of adult-onset calcification of joints and arteries (CALJA) affecting the iliac, femoral, and tibial arteries reducing circulation in the legs and the joints of the hands and feet causing pain.

## **Clinical and Translational Updates**

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