

**Synonym**

ENPP3,CD203c,NPP3,E-NPP3,PD-Ibeta,NPPase,PDNP3

**Source**

Human ENPP3 Protein, Fc Tag(EN3-H5267) is expressed from human 293 cells (HEK293). It contains AA Leu 48 - Ile 875 (Accession # [O14638-1](#)).

Predicted N-terminus: Pro

**Molecular Characterization**

Fc(Pro 100 - Lys 330) P01857	ENPP3(Leu 48 - Ile 875) O14638-1
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This protein carries a human IgG1 Fc tag at the N-terminus

The protein has a calculated MW of 121.5 kDa. The protein migrates as 150-190 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22  $\mu\text{m}$  filtered solution in 50mM Tris, 150mM NaCl, pH 7.5 with trehalose as protectant.

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.*

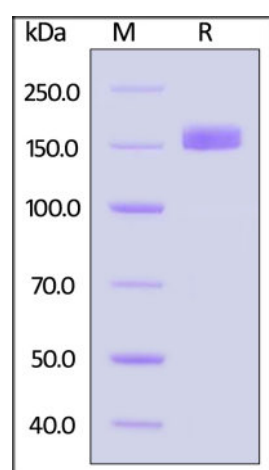
**Storage**

For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

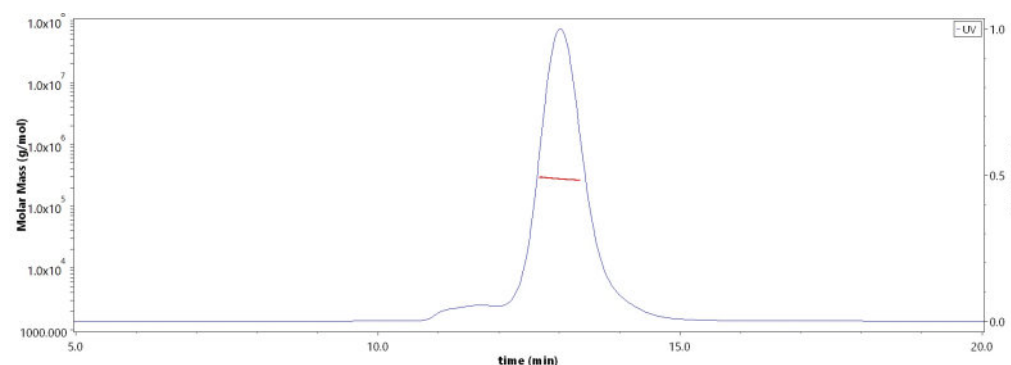
- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human ENPP3 Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity**

Measured by its ability to hydrolyze the Pyrophosphate (PPi) from the substrate adenosine-5'-triphosphate (ATP). The specific activity is > 100  $\mu\text{mol}/\text{min}/\mu\text{g}$  (QC tested).

**SEC-MALS**

The purity of Human ENPP3 Protein, Fc Tag (Cat. No. EN3-H5267) is more than 90% and the molecular weight of this protein is around 265-315 kDa verified by SEC-MALS.

[Report](#)

## Background

The human NPP family contains seven members which can be classified into two groups according to their substrate preferences. The first class comprises the nucleotide-degrading proteins NPP1, 3 and 4. NPP3 (CD203c, ENPP3) is expressed in multiple organs, including on epithelial and mucosal surfaces, and notably on basophils and mast cells. Activation of basophils by antigen-bound IgE leads to release of inflammatory mediators and rapid upregulation of NPP3 to the cell surface. This protein is in fact a common marker for diagnosing allergen sensitivity with patient basophils by flow cytometry. Basophils and mast cells mediate the response to certain pathogens, as well as acute and chronic allergic reactions. Following activation, these cells release ATP, which further stimulates them in an autocrine manner. NPP3 upregulation serves to degrade ATP and suppress chronic allergic inflammation (but not the acute response).

## Clinical and Translational Updates

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