

Canine ENPP3 / CD203c Protein, His Tag (MALS verified)

Catalog # EN3-C5243



Synonyms

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

Source

Canine ENPP3 Protein, His Tag (EN3-C5243) is expressed from human 293 cells (HEK293). It contains AA Arg 46 - Ile 874 (Accession # [A0A8I3N0F5](#)).

Predicted N-terminus: His

Molecular Characterization

Poly-his	ENPP3(Arg 46 - Ile 874) A0A8I3N0F5
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This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 97.0 kDa. The protein migrates as 95-130 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

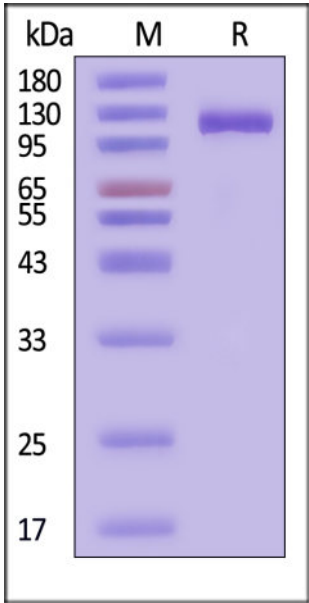
This product is stable after storage at:

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

ACRO Quality Management System

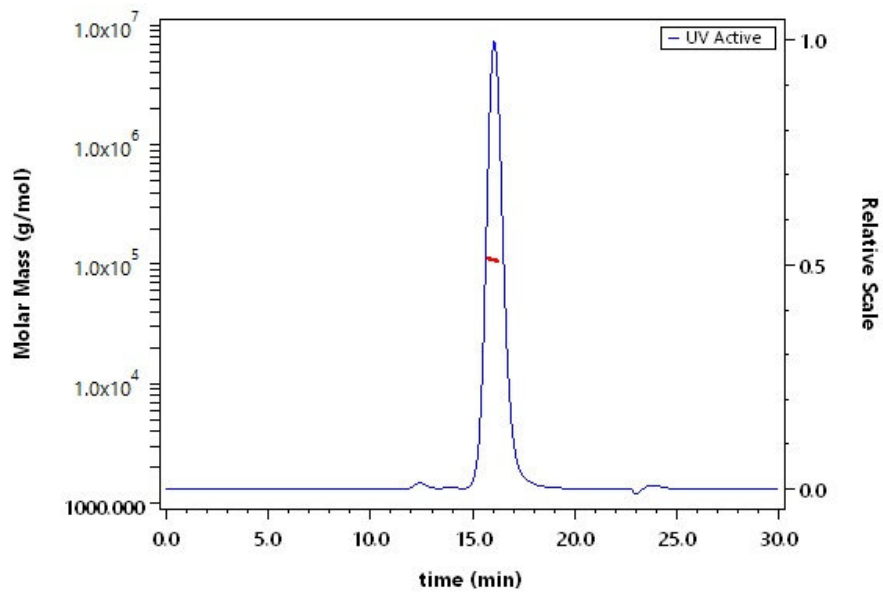
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Canine ENPP3 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Canine ENPP3 Protein, His Tag (Cat. No. EN3-C5243) is more than 95% and the molecular weight of this protein is around 100-130 kDa verified by SEC-MALS.

Bioactivity

Measured by its ability to hydrolyze the Pyrophosphate (PPi) from the substrate adenosine-5'-triphosphate (ATP). The specific activity is > 100 pmol/min/μg (QC tested).

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).



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