

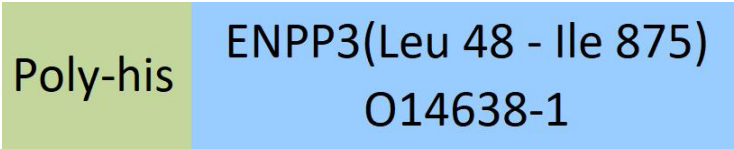
Synonym

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

Source

Human ENPP3, His Tag (EN3-H52H4) is expressed from human 293 cells (HEK293). It contains AA Leu 48 - Ile 875 (Accession # [O14638-1](#)).
Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.
The protein has a calculated MW of 96.9 kDa. The protein migrates as 115-120 kDa and 121-130 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 50 mM Tris, 150 mM NaCl, pH8.0. 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.

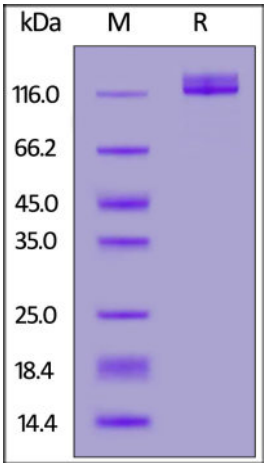
Storage

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 ENPP3, 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

Measured by its ability to hydrolyze the Pyrophosphate (PPi) from the substrate adenosine-5'-triphosphate (ATP). The specific activity is > 150 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).

References

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.