

## APLN Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	APJ endogenous ligand;Apelin;APEL
Protein Construction:	Gly23-Phe77
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9ULZ1
Molecular Weight:	32.9 kDa (predicted). Due to glycosylation, the protein migrates to 35-40 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Immobilized Human APLN, hFc Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Biotinylated Anti-APLN Antibody, hFc Tag with the EC50 of 22.2ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, 200 mM Arginine (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Macrophages play key roles during cardiovascular diseases (CVD) and their related complications. Apelin (APLN) is a key molecule, whose roles during CVD have been documented previously. Therefore, it has been hypothesized that APLN may perform its roles via modulation of macrophages. Additionally, due to the widespread distribution of the CVD, more effective therapeutic strategies need to be developed to overcome the related complications.

Reference

Arababadi MK, et al. APLN/APJ pathway: The key regulator of macrophage functions. Life Sci. 2019 Sep 1;232:116645. doi: 10.1016/j.lfs.2019.116645. Epub 2019 Jul 10. PMID: 31299236.

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