

## APLN/Apelin Protein, Mouse (Biotinylated, HEK293, Fc-Avi)

Cat. No.:	HY-P700658
Synonyms:	Apelin; APJ endogenous ligand; APEL
Species:	Mouse
Source:	HEK293
Accession:	Q9R0R4 (V23-F77)
Gene ID:	30878
Molecular Weight:	38-48 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, 0.2M Arginine, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	APLN/Apelin Protein serves as the endogenous ligand for the apelin receptor (APLNR), actively driving the internalization of APLNR. Notably, APLN exhibits distinct dissociation characteristics, with apelin-36 showing greater resistance to dissociation than (pyroglu)apelin-13 from APLNR. Beyond its role as a ligand, APLN plays a pivotal role in various physiological processes, including the regulation of cardiac precursor cell movements during gastrulation and heart morphogenesis. Additionally, it exerts an inhibitory effect on cytokine production in response to T-cell receptor/CD3 cross-linking, suggesting a potential modulatory role in immune responses, especially in neonates through oral intake in colostrum and milk. APLN contributes to the early formation of coronary blood vessels and mediates myocardial contractility in an ERK1/2-dependent manner. Furthermore, it may have a role in the central control of body fluid homeostasis by influencing vasopressin release and drinking behavior. The multifaceted functions of APLN highlight its significance in diverse physiological processes and potential therapeutic implications.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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