

Anti-Apelin Antibody
Catalog # ABO10819**Specification**

Anti-Apelin Antibody - Product Information

Application	WB
Primary Accession	Q9ULZ1
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Apelin(APLN) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Apelin Antibody - Additional Information

Gene ID 8862

Other Names

Apelin, APJ endogenous ligand, Apelin-36, Apelin-31, Apelin-28, Apelin-13, APLN, APEL

Calculated MW

8569 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Secreted.

Tissue Specificity

Expressed in the brain with highest levels in the frontal cortex, thalamus, hypothalamus and midbrain. Secreted by the mammary gland into the colostrum and the milk.

Protein Name

Apelin

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Apelin(60-77aa RKFRRQRPRLSHKGPMPPF), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the apelin family.

Anti-Apelin Antibody - Protein Information

Name APLN ([HGNC:16665](#))

Synonyms APEL

Function

Peptide hormone that functions as endogenous ligand for the G-protein-coupled apelin receptor (APLNR/APJ), that plays a role in cardiovascular homeostasis (PubMed:10525157, PubMed:22810587, PubMed:35817871, PubMed:38428423). Functions as a balanced agonist activating both G(i) protein pathway and beta-arrestin pathway of APLNR (PubMed:22810587, PubMed:38428423). Downstream G proteins activation, apelin can inhibit cAMP production and activate key intracellular effectors such as ERKs (PubMed:22810587, PubMed:35817871, PubMed:38428423). On the other hand, APLNR activation induces beta- arrestin recruitment to the membrane leading to desensitization and internalization of the receptor (PubMed:22810587, PubMed:38428423). Apelin blunts cardiac hypertrophic induction from APLNR on response to pathological stimuli, but also induces myocardial hypertrophy under normal conditions (PubMed:22810587, PubMed:38428423). Apelin-36 dissociates more hardly than (pyroglu)apelin-13 from APLNR (By similarity). Involved in the regulation of cardiac precursor cell movements during gastrulation and heart morphogenesis (By similarity). Has an inhibitory effect on cytokine production in response to T-cell receptor/CD3 cross-linking; the oral intake of apelin in the colostrum and the milk might therefore modulate immune responses in neonates (By similarity). Plays a role in early coronary blood vessels formation (By similarity). Mediates myocardial contractility in an ERK1/2-dependent manner (By similarity). May also have a role in the central control of body fluid homeostasis by influencing vasopressin release and drinking behavior (By similarity).

Cellular Location

Secreted {ECO:0000250|UniProtKB:Q9TUI9}. Secreted, extracellular space. Note=Abundantly secreted in the colostrum. Lower level in milk. Decreases rapidly within several days after parturition in milk, but is still detectable even in commercial milk. {ECO:0000250|UniProtKB:Q9TUI9}

Tissue Location

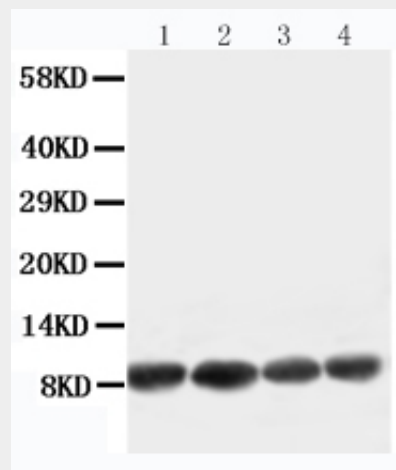
Expressed in the brain with highest levels in the frontal cortex, thalamus, hypothalamus and midbrain (PubMed:10617103) Secreted by the mammary gland into the colostrum and the milk

Anti-Apelin Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Apelin Antibody - Images



Anti-Apelin antibody, ABO10819, Western blotting Working concentration of primary antibody: 0.5 μ g/ml; 40 μ g protein was loaded. Lane 1: U87 Cell Lysate Lane 2: MCF-7 Cell Lysate Lane 3: HELA Cell Lysate Lane 4: MM453 Cell Lysate

Anti-Apelin Antibody - Background

Apelin is a neuropeptide expressed in the supraoptic and paraventricular nuclei that acts on specific receptors located on vasopressinergic neurons. The apelin gene to Xq25-q26.3 based on sequence similarity between the apelin sequence and a chromosome X PAC clone. This gene encodes a peptide that functions as an endogenous ligand for the G protein coupled receptor APJ. The encoded protein is synthesized as a prepropeptide that is processed into biologically active C-terminal fragments. The peptide fragments activate different tissue specific signaling pathways that regulate diverse biological functions including fluid homeostasis, cardiovascular function and insulin secretion. This protein also functions as a coreceptor for the human immunodeficiency virus 1.