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Anti-Apelin Antibody

Catalog # ABO10819

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.

Additional Information

Gene ID	8862
Other Names	Apelin, APJ endogenous ligand, Apelin-36, Apelin-31, Apelin-28, Apelin-13, APLN, APEL
Calculated MW	8569
Application Details	Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
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 RKFRRQRPRLSHKGPMPF), 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.

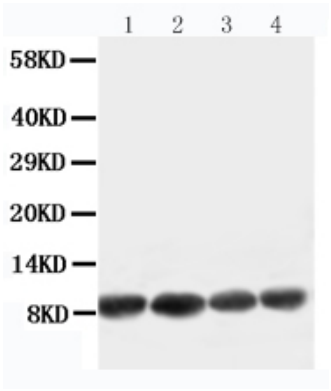
Protein Information

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 cadiovascular 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

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.

Images



Anti-Apelin antibody, ABO10819, Western blottingWorking concentration of primary antibody: 0.5 □¼g/ml; 40 □¼g protein was loaded. Lane 1: U87 Cell LysateLane 2: MCF-7 Cell LysateLane 3: HELA Cell LysateLane 4: MM453 Cell Lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.