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Anti-Apelin Reference Antibody (Amgen patent anti-Apelin)

Catalog # APR11425

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	Q9ULZ1
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	8569

Additional Information

Target/Specificity	Apelin
Expression system	CHO

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).

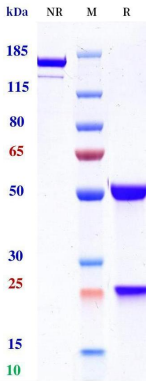
Cellular Location

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}

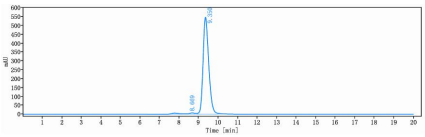
Tissue Location

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

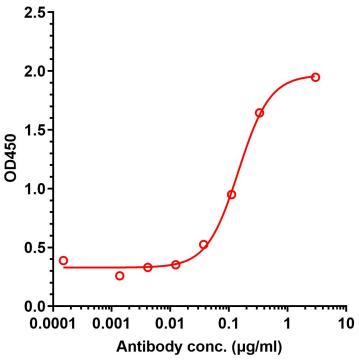
Images



Anti-Apelin Reference Antibody (Amgen patent anti-Apelin) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-Apelin Reference Antibody (Amgen patent anti-Apelin) is 96.4%, determined by SEC-HPLC.



Immobilized hu-Apelin-Fc at 2 μg/mL can bind Amgen patent anti-Apelin, EC50= 0.1453 μg/mL.

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