

Apelin (S-20): sc-33469

BACKGROUND

Apelin (APEL), an endogenous ligand for APJ, is an alternate co-receptor with CD4 for HIV-1 infection. This secreted protein inhibits HIV-1 entry into cells that coexpress APJ and CD4. By proteolytic processing of the peptide precursor, several different active peptides may be produced. Apelin-36, one such inotropic peptide, is being investigated as a potential plasma marker of cardio-pulmonary disease. Apelin is highly expressed in brain, mainly in the thalamus, frontal cortex, hypothalamus and midbrain. Apelin is also secreted by the mammary gland into the colostrum and milk. Oral intake of Apelin (in milk and colostrum) may be important in the modulation of the immune responses in neonates and newborns. Apelin has also been found to be a potent stimulator of cardiac contractility and may function in the regulation of the cardiovascular system.

CHROMOSOMAL LOCATION

Genetic locus: APLN (human) mapping to Xq26.1; Apln (mouse) mapping to X A4.

SOURCE

Apelin (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Apelin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33469 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Apelin (S-20) is recommended for detection of Apelin precursor and Apelin-36, Apelin-31, and Apelin-28 processed active peptides of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Apelin-13 processed active peptide.

Apelin (S-20) is also recommended for detection of Apelin precursor and Apelin-36, Apelin-31 and Apelin-28 processed active peptides in additional species, including canine.

Suitable for use as control antibody for Apelin siRNA (h): sc-44741, Apelin siRNA (m): sc-44742, Apelin shRNA Plasmid (h): sc-44741-SH, Apelin shRNA Plasmid (m): sc-44742-SH, Apelin shRNA (h) Lentiviral Particles: sc-44741-V and Apelin shRNA (m) Lentiviral Particles: sc-44742-V.

Molecular Weight of Apelin monomer: 8 kDa.

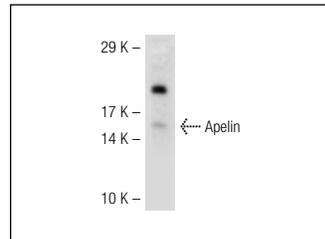
Molecular Weight of Apelin dimer: 16 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, HeLa whole cell lysate: sc-2200 or A-10 cell lysate: sc-3806.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Apelin (S-20): sc-33469. Western blot analysis of Apelin expression in PC-12 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Pluvinet, R., et al. 2008. CD40: an upstream master switch for endothelial cell activation uncovered by RNAi-coupled transcriptional profiling. *Blood* 112: 3624-3637.
2. Ringström, C., et al. 2010. Apelin is a novel islet peptide. *Regul. Pept.* 162: 44-51.
3. Clark, P.R., et al. 2011. MEK5 is activated by shear stress, activates ERK5 and induces KLF4 to modulate TNF responses in human dermal microvascular endothelial cells. *Microcirculation* 18: 102-117.
4. Than, A., et al. 2012. Apelin secretion and expression of apelin receptors in 3T3-L1 adipocytes are differentially regulated by angiotensin type 1 and type 2 receptors. *Mol. Cell. Endocrinol.* 351: 296-305.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Apelin (2A1-2D5): sc-293441**, our highly recommended monoclonal alternative to Apelin (S-20).