

Apelin (C-13): sc-33470

BACKGROUND

Apelin (APEL), an endogenous ligand for APJ, is an alternate coreceptor 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 cardiopulmonary 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.

REFERENCES

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3. Lee, D.K., et al. 2000. Characterization of Apelin, the ligand for the APJ receptor. *J. Neurochem.* 74: 34-41.
4. Cayabyab, M., et al. 2000. Apelin, the natural ligand of the orphan seven-transmembrane receptor APJ, inhibits human immunodeficiency virus type 1 entry. *J. Virol.* 74: 11972-11976.
5. Wei, L., et al. 2005. Regulation of apelin mRNA expression by Insulin and glucocorticoids in mouse 3T3-L1 adipocytes. *Regul. Pept.* 132: 27-32.
6. Goetze, J.P., et al. 2005. Apelin: a new plasma marker of cardiopulmonary disease. *Regul. Pept.* 133: 134-138.
7. Jia, Y.X., et al. 2005. Apelin protects myocardial injury induced by isoproterenol in rats. *Regul. Pept.* 133: 147-154.
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CHROMOSOMAL LOCATION

Genetic locus: APLN (human) mapping to Xq25-26.3; Apln (mouse) mapping to X A3.2.

SOURCE

Apelin (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at 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-33470 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Apelin (C-13) is recommended for detection of Apelin precursor and Apelin-36, Apelin-31, Apelin-28 and Apelin-13 processed active peptides of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Apelin siRNA (h): sc-44741 and Apelin siRNA (m): sc-44742.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

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.


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Try **Apelin (2A1-2D5): sc-293441**, our highly recommended monoclonal alternative to Apelin (C-13).