SANTA CRUZ BIOTECHNOLOGY, INC.

Corin (N-15): sc-47850

BACKGROUND

Corin, also designated atrial natriuretic peptide-converting enzyme, localizes to the membrane as a single-pass type II membrane protein. Corin acts as a serine protease that utilizes atrial and brain natriuretic peptides (ANP and BNP) as substrates, which play a role in blood coagulation, platelet activation, fibrinolysis and thrombosis. The extracellular domain of Corin contains two frizzled-like cysteine-rich domains, eight low density lipoprotein receptor (LDLR) repeats, a macrophage scavenger receptor-like domain and a trypsin-like protease domain at the C-terminus. The frizzled 1 domain and LDLR repeats 1-4 are responsible for substrate recognition. Corin converts Pro-ANP to ANP by cleaving between Arginine 123 and Serine 124. Corin is highly expressed in cardiomyocytes, and mice deficient in the Corin protein exhibit hypertension and have cardiac hypertrophy.

REFERENCES

1. Knappe, S., et al. 2004. Identification of domain structures in the propeptide of corin essential for the processing of proatrial natriuretic peptide. J. Biol. Chem. 279: 34464-34471.
2. Langenickel, T.H., et al. 2004. Rat corin gene: molecular cloning and reduced expression in experimental heart failure. Am. J. Physiol. Heart Circ. Physiol. 287: H1516-H1521.
3. Tran, K.L., et al. 2004. Upregulation of corin gene expression in myocardium. Am. J. Physiol. Heart Circ. Physiol. 287: H1625-H1631.
4. Dries, D.L., et al. 2005. Corin gene minor allele defined by 2 missense mutations is common in blacks and associated with high blood pressure and hypertension. Circulation 112: 2403-2410.
5. Wu, Q., et al. 2005. Serine proteases and cardiac function. Biochim. Biophys. Acta 1751: 82-94.
6. Chan, J.C., et al. 2005. Hypertension in mice lacking the proatrial natriuretic peptide convertase corin. Proc. Natl. Acad. Sci. USA 102: 785-790.

CHROMOSOMAL LOCATION

Genetic locus: CORIN (human) mapping to 4p12.

SOURCE

Corin (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of Corin 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-47850 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Corin (N-15) is recommended for detection of Corin of 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).

Suitable for use as control antibody for Corin siRNA (h): sc-60432, Corin shRNA Plasmid (h): sc-60432-SH and Corin shRNA (h) Lentiviral Particles: sc-60432-V.

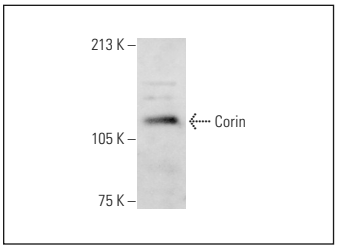
Molecular Weight of Corin: 125-135 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human skeletal muscle extract: sc-363776.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Corin (N-15): sc-47850. Western blot analysis of Corin expression in human skeletal muscle tissue extract.

STORAGE

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