

# Corin (H-220): sc-67178

## 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. Chan, J.C., et al. 2005. Hypertension in mice lacking the proatrial natriuretic peptide convertase Corin. *Proc. Natl. Acad. Sci. USA* 102: 785-790.
5. Uchiyama, S. and Iijima, N. 2005. Partial purification and characterization of pro-phospholipase A2 activating proteases from gill membranes of the red sea bream, *Chrysophrys major*. *Comp. Biochem. Physiol. B, Biochem. Mol. Biol.* 141: 121-127.

## CHROMOSOMAL LOCATION

Genetic locus: CORIN (human) mapping to 4p12; Corin (mouse) mapping to 5 C3.2.

## SOURCE

Corin (H-220) is a rabbit polyclonal antibody raised against amino acids 71-290 mapping within a C-terminal extracellular 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.

## STORAGE

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

## APPLICATIONS

Corin (H-220) is recommended for detection of Corin of human and, to a lesser extent, mouse and rat 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).

Corin (H-220) is also recommended for detection of Corin in additional species, including equine.

Suitable for use as control antibody for Corin siRNA (h): sc-60432, Corin siRNA (m): sc-60433, Corin shRNA Plasmid (h): sc-60432-SH, Corin shRNA Plasmid (m): sc-60433-SH, Corin shRNA (h) Lentiviral Particles: sc-60432-V and Corin shRNA (m) Lentiviral Particles: sc-60433-V.

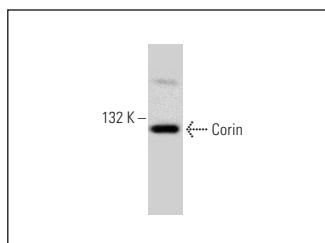
Molecular Weight of Corin: 125-135 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Corin (H-220): sc-67178. Western blot analysis of Corin expression in HeLa whole cell lysate.

## RESEARCH USE

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



Try **Corin (5B6): sc-293360**, our highly recommended monoclonal alternative to Corin (H-220).