



# Angiotensinase C (M-160): sc-134495

## BACKGROUND

Angiotensinase C, also designated lysosomal Pro-X carboxypeptidase or prolylcarboxypeptidase, belongs to the peptidase S28 family. Angiotensinase C which is highly expressed in placenta, lung and liver and is also expressed in heart, pancreas, kidney and brain, is a cell matrix-associated prekallikrein (PK) activator. Angiotensin II, a substrate of Angiotensinase C, is involved in regulating blood pressure and electrolyte balance, suggesting that the gene encoding for Angiotensinase C may be related to essential hypertension, a condition involving high blood pressure with no known cause. Angiotensinase C cleaves off the C-terminal amino acids linked to proline in peptides such as Angiotensin II, III and DES-Arg9-bradykinin. The cleavage occurs at an acidic pH, but with some substrates enzymatic activity is retained at a neutral pH.

## REFERENCES

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2. Watson, B., Nowak, N.J., Myracle, A.D., Shows, T.B. and Warnock, D.G. 1997. The human angiotensinase C gene (HUMPCP) maps to 11q14 within 700 kb of D11S901: a candidate gene for essential hypertension. *Genomics* 44: 365-367.
3. Shariat-Madar, Z., Mahdi, F. and Schmaier, A.H. 2002. Identification and characterization of prolylcarboxypeptidase as an endothelial cell prekallikrein activator. *J. Biol. Chem.* 277: 17962-17969.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 176785. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Shariat-Madar, Z., Mahdi, F. and Schmaier, A.H. 2004. Recombinant prolylcarboxypeptidase activates plasma prekallikrein. *Blood* 103: 4554-4561.
6. Shariat-Madar, Z., Rahimy, E., Mahdi, F. and Schmaier, A.H. 2005. Over-expression of prolylcarboxypeptidase enhances plasma prekallikrein activation on Chinese hamster ovary cells. *Am. J. Physiol. Heart Circ. Physiol.* 289: 2697-2703.

## CHROMOSOMAL LOCATION

Genetic locus: PRCP (human) mapping to 11q14.1; Prcp (mouse) mapping to 7 E1.

## SOURCE

Angiotensinase C (M-160) is a rabbit polyclonal antibody raised against amino acids 201-360 mapping within an internal region of Angiotensinase C of mouse origin.

## PRODUCT

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

## APPLICATIONS

Angiotensinase C (M-160) is recommended for detection of Angiotensinase C of mouse, rat and, to a lesser extent, 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 Angiotensinase C siRNA (h): sc-60170, Angiotensinase C siRNA (m): sc-60171, Angiotensinase C shRNA Plasmid (h): sc-60170-SH, Angiotensinase C shRNA Plasmid (m): sc-60171-SH, Angiotensinase C shRNA (h) Lentiviral Particles: sc-60170-V and Angiotensinase C shRNA (m) Lentiviral Particles: sc-60171-V.

Molecular Weight of Angiotensinase C: 56 kDa.

## 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.