

CARM1 (H-140): sc-33176

BACKGROUND

CARM1 (coactivator-associated arginine methyltransferase 1), also known as protein arginine N-methyltransferase 4 (PRMT4), is a 585 amino acid nuclear and cytoplasmic protein belonging to the protein arginine N-methyltransferase family. As a protein arginine N-methyltransferase, CARM1 is capable of catalyzing the transfer of methyl groups from S-adenosylmethionine to the guanidino group nitrogen atoms of arginine residues in certain proteins involved in mRNA stability, DNA packaging and transcriptional regulation. The methyltransferase activity of CARM1 has been found to be negatively regulated through phosphorylation at a conserved serine residue. CARM1 acts as a positive regulator for multiple transcription factors and functions as a secondary co-activator through its association with p160 co-activators. CARM1 exists as two alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 19p13.2.

CHROMOSOMAL LOCATION

Genetic locus: CARM1 (human) mapping to 19p13.2; Carm1 (mouse) mapping to 9 A3.

SOURCE

CARM1 (H-140) is a rabbit polyclonal antibody raised against amino acids 11-152 mapping near the N-terminus of CARM1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-33176 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

CARM1 (H-140) is recommended for detection of CARM1 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), immunohistochemistry (including paraffin-embedded sections) (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 CARM1 siRNA (h): sc-44875, CARM1 siRNA (m): sc-37730, CARM1 shRNA Plasmid (h): sc-44875-SH, CARM1 shRNA Plasmid (m): sc-37730-SH, CARM1 shRNA (h) Lentiviral Particles: sc-44875-V and CARM1 shRNA (m) Lentiviral Particles: sc-37730-V.

CARM1 (H-140) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CARM1 isoform 1: 64 kDa.

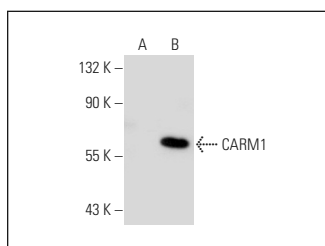
Molecular Weight of CARM1 isoform 2: 45 kDa.

Positive Controls: CARM1 (m): 293T Lysate: sc-119000.

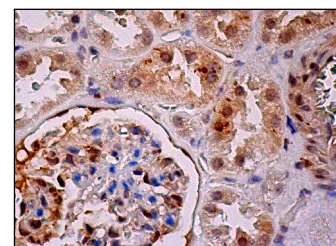
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



CARM1 (H-140): sc-33176. Western blot analysis of CARM1 expression in non-transfected: sc-117752 (A) and mouse CARM1 transfected: sc-119000 (B) 293T whole cell lysates.



CARM1 (H-140): sc-33176. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and nuclear staining of cells in glomerulus and tubules.

SELECT PRODUCT CITATIONS

- Degenhardt, T., et al. 2009. Population-level transcription cycles derive from stochastic timing of single-cell transcription. *Cell* 138: 489-501.
- Gao, W.W., et al. 2015. Arginine methylation of HSP70 regulates retinoid acid-mediated RARβ2 gene activation. *Proc. Natl. Acad. Sci. USA* 112: E3327-E3336.

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 **CARM1 (D-6): sc-390656** or **CARM1 (B-10): sc-398818**, our highly recommended monoclonal alternatives to CARM1 (H-140).