#21331

CARM1 (Ab-228) Antibody

Catalog: #21331-1 50μl **Orders: order@signalwayantibody.com**

#21331-2 100μl **Support: tech@signalwayantibody.com**

Storage: Store at -20°C/1 year **Web: www.signalwayantibody.com**

Application	Species Reactivity	Source	Molecular Wt.
WB IF	Human, Mouse, Rat	Rabbit Polyconal Ab	63KD

Description: Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.

Specificity: The antibody endogenous levels of total CARM1 protein.

Immunogen: Peptide sequence around aa.226~230 (V-K-S-N-N) derived from CARM1

Formulation: Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Synonyms: PRMT4

Accession No.: Swiss-Prot#:Q86X55 NCBI Gene#: 10498
NCBI Protein#: NP_954592.1

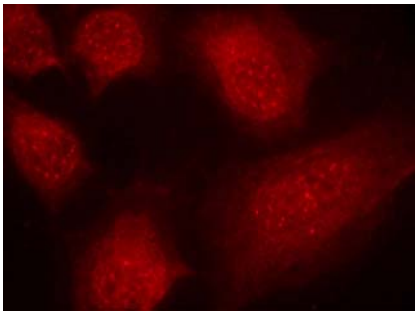
Background: Methylates (mono- and asymmetric dimethylation) the guanidino nitrogens of arginyl residues in several proteins involved in DNA packaging, transcription regulation, and mRNA stability. Recruited to promoters upon gene activation together with histone acetyltransferases from EP300/P300 and p160 families, methylates histone H3 at 'Arg-17' and activates transcription via chromatin remodeling. During nuclear hormone receptor activation and TCF7L2/TCF4 activation, acts synergically with EP300/P300 and either one of the p160 histone acetyltransferases NCOA1/SRC1, NCOA2/GRIP1 and NCOA3/ACTR or CTNNB1/beta-catenin to activate transcription. During myogenic transcriptional activation, acts together with NCOA3/ACTR as a coactivator for MEF2C. During monocyte inflammatory stimulation, acts together with EP300/P300 as a coactivator for NF-kappa-B. Also seems to be involved in p53/TP53 transcriptional activation. Methylates EP300/P300, both at 'Arg-2142', which may loosen its interaction with NCOA2/GRIP1, and at 'Arg-580' and 'Arg-604' in the KIX domain, which impairs its interaction with CREB and inhibits CREB-dependent transcriptional activation. Also methylates arginine residues in RNA-binding proteins PABPC1, ELAVL1 and ELAV4, which may affect their mRNA-stabilizing properties and the half-life of their target mRNAs.

References:

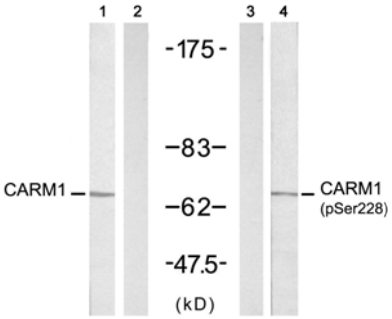
Selma El Messaoudi, et al. (2006) Proc Natl Acad Sci U S A; 103(36): 13351–13356.
Marcela Covic, et al. (2005) EMBO J; 24(1): 85–96.
Eleni Zika et al. (2005) Proc Natl Acad Sci U S A.; 102(45): 16321–16326
Neelu Yadav et al. (2003) Proc Natl Acad Sci U S A; 100(11): 6464–6468

Recommended Dilutions:

Western blotting	1:500~1:1000
Immunofluorescence	1:100~1:200



Immunofluorescence staining of methanol-fixed HeLa cells using CARM1 (Ab-228) antibody (#21331, Red).



Western blot analysis of extracts from A431 cells untreated or treated with EGF (200ng/ml, 5min), using CARM1 (Ab-228) antibody (#21331, Line 1 and 2) and CARM1 (Phospho-Ser228) antibody (#11331, Line 3 and 4).

Citation:
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Related Pathway: Chromatin/Transcription

Note: For western blotting, incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.