


Product datasheet

Anti-CARM1 antibody ab84370

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Overview

Product name	Anti-CARM1 antibody
Description	Rabbit polyclonal to CARM1
Host species	Rabbit
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Rat, Cow, Dog, Pig, Rhesus monkey, Gorilla, Chinese hamster, Orangutan, Elephant 
Immunogen	Synthetic peptide corresponding to Human CARM1 aa 550-585 (C terminal). Database link: Q86X55
Positive control	Human breast adenocarcinoma. Human prostate adenocarcinoma.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	Antibody was affinity purified using an epitope specific to CARM1 immobilized on solid support.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab84370 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		

Application notes

IHC-P: 1/100 - 1/500.

Antigen exposure is recommended.

Antigen exposure with citrate buffer will enhance staining.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

Function

Methylates (mono- and asymmetric dimethylation) the guanidino nitrogens of arginyl residues in several proteins involved in DNA packaging, transcription regulation, pre-mRNA splicing, 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' (H3R17me), forming mainly asymmetric dimethylarginine (H3R17me₂), leading to activate 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. Acts as coactivator for PPARG, promotes adipocyte differentiation and the accumulation of brown fat tissue. Plays a role in the regulation of pre-mRNA alternative splicing by methylation of splicing factors. 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.

Tissue specificity

Overexpressed in prostate adenocarcinomas and high-grade prostatic intraepithelial neoplasia.

Sequence similarities

Belongs to the protein arginine N-methyltransferase family.

Post-translational modifications

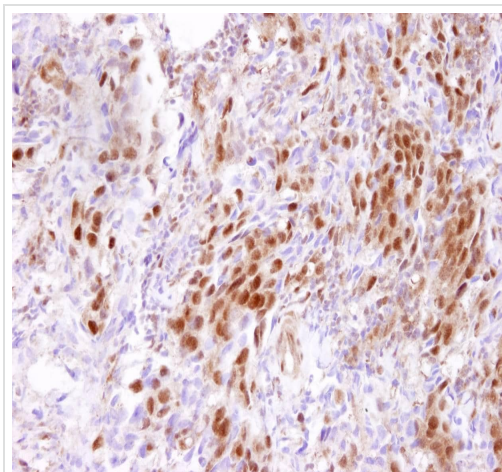
Auto-methylated on Arg-550. Methylation enhances transcription coactivator activity. Methylation is required for its role in the regulation of pre-mRNA alternative splicing.

Phosphorylation at Ser-216 interferes with S-adenosyl-L-methionine binding and strongly reduces methyltransferase activity (By similarity). Phosphorylation at Ser-216 is strongly increased during mitosis, and decreases rapidly to a very low, basal level after entry into the G1 phase of the cell cycle. Phosphorylation at Ser-216 may promote location in the cytosol.

Cellular localization

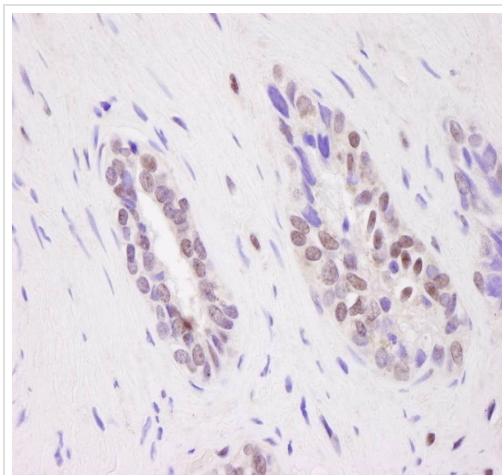
Nucleus. Cytoplasm. Mainly nuclear during the G1, S and G2 phases of the cell cycle. Cytoplasmic during mitosis, after breakup of the nuclear membrane.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CARM1 antibody (ab84370)

ab84370 at 1/100, staining human CARM1 in a section of human breast adenocarcinoma by immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CARM1 antibody (ab84370)

ab84370 at 1/500, staining human CARM1 in a section of human prostate adenocarcinoma by immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).

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