

**CARM1 Blocking Peptide**  
**Catalog # PBV10344b****Specification**

---

**CARM1 Blocking Peptide - Product Information**

Primary Accession	<a href="#">Q9WVG6</a>
Other Accession	<a href="#">EDL25201</a>
Gene ID	<b>59035</b>
Calculated MW	<b>65854</b>

**CARM1 Blocking Peptide - Additional Information****Gene ID** 59035**Application & Usage**

The peptide is used for blocking the antibody activity of CARM1. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

**Other Names**

Histone-arginine methyltransferase CARM1, 2.1.1.-, 2.1.1.125, Coactivator-associated arginine methyltransferase 1, Protein arginine N-methyltransferase 4, Carm1, Prmt4

**Target/Specificity**

CARM1

**Formulation**

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

CARM1 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

**CARM1 Blocking Peptide - Protein Information****Name** Carm1**Synonyms** Prmt4**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 (PubMed:<a href="http://www.uniprot.org/citations/10381882" target="\_blank">10381882</a>, PubMed:<a href="http://www.uniprot.org/citations/21138967" target="\_blank">21138967</a>, PubMed:<a href="http://www.uniprot.org/citations/11341840" target="\_blank">11341840</a>, PubMed:<a href="http://www.uniprot.org/citations/11997499" target="\_blank">11997499</a>, PubMed:<a href="http://www.uniprot.org/citations/19897492" target="\_blank">19897492</a>, PubMed:<a href="http://www.uniprot.org/citations/14966289" target="\_blank">14966289</a>, PubMed:<a href="http://www.uniprot.org/citations/17218272" target="\_blank">17218272</a>). 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 (H3R17me2a), leading to activates transcription via chromatin remodeling (PubMed:<a href="http://www.uniprot.org/citations/10381882" target="\_blank">10381882</a>, PubMed:<a href="http://www.uniprot.org/citations/11747826" target="\_blank">11747826</a>, PubMed:<a href="http://www.uniprot.org/citations/12498683" target="\_blank">12498683</a>, PubMed:<a href="http://www.uniprot.org/citations/11751582" target="\_blank">11751582</a>, PubMed:<a href="http://www.uniprot.org/citations/11341840" target="\_blank">11341840</a>, PubMed:<a href="http://www.uniprot.org/citations/11997499" target="\_blank">11997499</a>, PubMed:<a href="http://www.uniprot.org/citations/15339660" target="\_blank">15339660</a>, PubMed:<a href="http://www.uniprot.org/citations/15616592" target="\_blank">15616592</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/11997499" target="\_blank">11997499</a>, PubMed:<a href="http://www.uniprot.org/citations/16322096" target="\_blank">16322096</a>, PubMed:<a href="http://www.uniprot.org/citations/17882261" target="\_blank">17882261</a>, PubMed:<a href="http://www.uniprot.org/citations/19843527" target="\_blank">19843527</a>). During myogenic transcriptional activation, acts together with NCOA3/ACTR as a coactivator for MEF2C (PubMed:<a href="http://www.uniprot.org/citations/11713257" target="\_blank">11713257</a>). During monocyte inflammatory stimulation, acts together with EP300/P300 as a coactivator for NF-kappa-B (PubMed:<a href="http://www.uniprot.org/citations/11983685" target="\_blank">11983685</a>). Acts as a coactivator for PPARγ, promotes adipocyte differentiation and the accumulation of brown fat tissue (PubMed:<a href="http://www.uniprot.org/citations/18188184" target="\_blank">18188184</a>). Plays a role in the regulation of pre-mRNA alternative splicing by methylation of splicing factors (PubMed:<a href="http://www.uniprot.org/citations/21138967" target="\_blank">21138967</a>). Also seems to be involved in p53/TP53 transcriptional activation (PubMed:<a href="http://www.uniprot.org/citations/15186775" target="\_blank">15186775</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/11701890" target="\_blank">11701890</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/11850402" target="\_blank">11850402</a>, PubMed:<a href="http://www.uniprot.org/citations/12756295" target="\_blank">12756295</a>, PubMed:<a href="http://www.uniprot.org/citations/12237300" target="\_blank">12237300</a>). Acts as a transcriptional coactivator of ACACA/acetyl-CoA carboxylase by enriching H3R17 methylation at its promoter, thereby positively regulating fatty acid synthesis (PubMed:<a href="http://www.uniprot.org/citations/30366907" target="\_blank">30366907</a>). Independently of its methyltransferase activity, involved in replication fork progression: promotes PARP1 recruitment to replication forks, leading to poly-ADP- ribosylation of chromatin at replication forks and reduced fork speed (By similarity).

### Cellular Location

Nucleus. Cytoplasm. Chromosome {ECO:0000250|UniProtKB:Q86X55}. Note=Mainly nuclear

during the G1, S and G2 phases of the cell cycle. Cytoplasmic during mitosis, after breakup of the nuclear membrane. Localizes to replication forks {ECO:0000250|UniProtKB:Q86X55}

**Tissue Location**

Ubiquitously expressed. Within the brain, present in proliferating cells from lateral ventricular zone and dentate gyrus (at protein level).

**CARM1 Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**CARM1 Blocking Peptide - Images**