

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human Carm1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Carm1 Lys209-Leu379 Accession # Q86X55
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

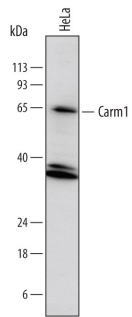
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

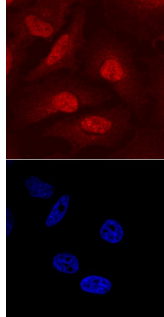
DATA

Western Blot



Detection of Human Carm1 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Carm1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7277) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Carm1 at approximately 63 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunocytochemistry



Carm1 in HeLa Human Cell Line. Carm1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human Carm1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7277) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Carm1 (Coactivator-associated arginine methyltransferase 1; also PRMT4) is a 60-64 kDa member of the Arg N-methyltransferase family of enzymes. It is ubiquitously expressed, and found in the cytoplasm during mitosis, and in the nucleus during the G1, G2 and S phases of the cell cycle. Carm1 binds to nuclear receptor p160 family coactivators. When bound, it methylates DNA-associated histone H3 arginines, allowing for chromatin remodeling and gene activation. It also plays a role in pre-mRNA splicing through its methylation of splicing factors, and regulates the stability of RNA-binding proteins. Human Carm1 is 608 amino acids (aa) in length. It contains one catalytic site between aa 184-394, and a transactivation domain at the C-terminus (aa 499-608). There is one automethylation site at Arg550, and a phosphorylation site at Ser216 that, when utilized, promotes cytosolic localization. Carm1 likely forms homodimers. There are three potential isoform variants. One shows an alternative start site at Met378, a second possesses a 16 aa substitution for aa 369-608, and a third contains a deletion of aa 539-561. Over aa 209-379, human and mouse Carm1 are identical in aa sequence.