

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse                                                                            |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Carm1 in direct ELISAs and Western blots.                                |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                    |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                              |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Carm1<br>Lys209-Leu379<br>Accession # Q86X55 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm    |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                           |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                        |

#### 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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Knockout Validated</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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.

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.