

**#27502** Store at -20°C

# **Mono-Methyl Arginine (R\*GG) (D5A12) Rabbit mAb (HRP Conjugate)**


**Cell Signaling**  
TECHNOLOGY®

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

**3 Trask Lane | Danvers | Massachusetts | 01923 | USA**
**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> WB	<b>Reactivity:</b> All	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit
----------------------------	---------------------------	-----------------------------------	----------------------------------

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Mono-Methyl Arginine (R*GG) (D5A12) Rabbit mAb (HRP Conjugate) recognizes endogenous levels of proteins only when mono-methylated at arginine. The antibody prefers Arg-Gly-Gly motifs. The antibody does not cross-react with di-methyl arginine or unmethylated arginine.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic mono-methyl arginine peptide library containing R*GG motifs.	
<b>Product Description</b>	This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Mono-Methyl Arginine (R*GG) (D5A12) Rabbit mAb #8711.	
<b>Background</b>	Arginine methylation is a prevalent PTM found on both nuclear and cytoplasmic proteins. Arginine methylated proteins are involved in many different cellular processes, including transcriptional regulation, signal transduction, RNA metabolism, and DNA damage repair (1-3). Arginine methylation is carried out by the arginine N-methyltransferase (PRMT) family of enzymes that catalyze the transfer of a methyl group from S-adenosylmethionine (AdoMet) to a guanidine nitrogen of arginine (4). There are three different types of arginine methylation: asymmetric dimethylarginine (aDMA, omega-NG,NG-dimethylarginine), where two methyl groups are placed on one of the terminal nitrogen atoms of the guanidine group of arginine; symmetric dimethylarginine (sDMA, omega-NG,NG-dimethylarginine), where one methyl group is placed on each of the two terminal guanidine nitrogens of arginine; and monomethylarginine (MMA, omega-NG-methylarginine), where a single methyl group is placed on one of the terminal nitrogen atoms of arginine. Each of these modifications has potentially different functional consequences. Though all PRMT proteins catalyze the formation of MMA, Type I PRMTs (PRMT1, 3, 4, 6, and 8) add an additional methyl group to produce aDMA, while Type II PRMTs (PRMT5 and 7) produce sDMA. Methylated arginine residues often reside in glycine-arginine rich (GAR) protein domains, such as RGG, RG, and RXR repeats (5). However, PRMT4/CARM1 and PRMT5 methylate arginine residues within proline-glycine-methionine rich (PGM) motifs (6).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Bedford, M.T. and Richard, S. (2005) <i>Mol Cell</i> 18, 263-72.</li> <li>Pahlich, S. et al. (2006) <i>Biochim Biophys Acta</i> 1764, 1890-903.</li> <li>Bedford, M.T. and Clarke, S.G. (2009) <i>Mol Cell</i> 33, 1-13.</li> <li>McBride, A.E. and Silver, P.A. (2001) <i>Cell</i> 106, 5-8.</li> <li>Gary, J.D. and Clarke, S. (1998) <i>Prog Nucleic Acid Res Mol Biol</i> 61, 65-131.</li> <li>Cheng, D. et al. (2007) <i>Mol Cell</i> 25, 71-83.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

## Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](https://cellsignal.com/trademarks) for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.