

Product Specification Sheet

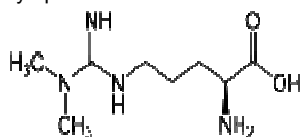
Asymmetric dimethyl Arginine Antibodies

□ Cat. # ADMA11-S

Rabbit Anti- Asymmetric dimethyl Arginine (ADMA) antiserum

SIZE: 100 ul

Protein methylation is a post translational modification at Arginine and Lysine residues. Asymmetric dimethyl arginine naturally occurs in blood plasma and is a byproduct of protein modification in the cytoplasm.



Three distinct types of methylated arginine residues occur in mammalian cells. The most prevalent is omega-NG,NG-dimethylarginine (ADMA) where two methyl groups are placed on one of the terminal nitrogen atoms of the guanidino group.

Two less common derivatives are symmetric dimethylated derivative, where one methyl group is placed on each of the terminal guanidino nitrogens (omega-NG,N'G-dimethylarginine; SDMA) and the monomethylated derivative with a single methyl group on the terminal nitrogen atom (omega-NG-monomethylarginine; MMA). Methylated arginine residues in proteins are often flanked by one or more glycine residues but with exceptions.

In mammalian cells enzyme S-adenosylmethionine protein N-methyltransferases (protein methylases I and II) is involved in the modification of arginine (PRMTs in specific). After synthesis; ADMA migrates into blood plasma via extracellular space. It is closely related to L-arginine, a conditionally-essential amino acid. ADMA interferes with L-arginine in the production of nitric oxide, a key chemical involved in normal endothelial function and cardiovascular health. High concentrations of ADMA found in some pathophysiological conditions are associated with other factors giving increased risk of atherosclerosis such as increasing age, hypercholesterolemia, hypertension, hypertriglyceridemia, diabetes mellitus, insulin insensitivity, hyperhomocysteinemia and renal failure.

Source of Antigen and Antibodies

Antigen	Raised against peptide containing dimethyl arginine (asymmetric) conjugated to KLH
Ab Host/type	Rabbit, polyclonal unpurified IgG (cat # ADMA11-S)
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control
+ve control	# HCL-2008 HeLa nuclear extract can be used as control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder

Supplied in Buffer: 30% glycerol and 0.1% sodium azide

Reconstitute powder in 100 ul PBS

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C.

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1:500-2K for neat serum using Chemiluminescence technique).

ChIP: 10 µl per ChIP

ChIP-Seq: 10 µl each

Histochemistry & Immunofluorescence: 1:250 - 1:500 dilution

Specificity & Cross-reactivity

ADMA11-S might cross react with methylated arginine residue containing proteins. Cross reactivity has not been established.

General References Gary JD., (1998). Prog Nucleic Acid Res Mol Biol. 61:65–131. Bedford. MT., (2009). Mol Cell. 33(1): 1–13. Paik WK., (2000). J Biol Chem; 275:7723–7730.

**This product is for In vitro research use only.*

Related materials available from ADI

Antibodies:

ReadyBlot **Kidney Protein Explorer**-Study distribution of protein in various regions of the Human/rat kidney using the pre-made protein blots; Western blot recycling kit-Use the same blot for WNK1-4.

ADMA11-S-ADMA-antiserum

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