

nNOS Polyclonal Antibody

Catalog NumberPA1-038

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Rat
Host/Isotope	Rabbit / IgG	Published species	Rat, Mouse
Class	Polyclonal	Tested Applications	
Type	Antibody	Western Blot (WB)	Dilution * 1:100
Immunogen	Synthetic peptide corresponding to residues I(237) Q V D R D L D G K S H K A(250) of rat nNOS.	Published Applications	
Conjugate	Unconjugated	Western Blot (WB)	See 5 publications below
Form	Liquid	Immunohistochemistry (IHC)	See 1 publications below
Concentration	1 mg/mL	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles		

Product specific information

PA1-038 detects recombinant rat brain nitric oxide synthase (nNOS) overexpressed in E. coli. This antibody does not to detect iNOS or eNOS. PA1-038 has been successfully used in Western blot procedures. By Western blot, this antibody detects an ~155 kDa protein representing recombinant rat nNOS protein overexpressed in E. coli. The PA1-038 immunogen is a synthetic peptide corresponding to residues I(237) Q V D R D L D G K S H K A(250) of rat nNOS.

Background/Target Information

NOS activity requires homodimerization as well as three cosubstrates (L-arginine, NADPH and O2) and five cofactors or prosthetic groups (FAD, FMN, calmodulin, tetrahydrobiopterin and heme). Several distinct NOS isoforms have been described and been shown to represent the products of three distinct genes. These include two constitutive Ca2+/CaM-dependent forms of NOS, including NOS1 (also designated ncNOS) whose activity was first identified in neurons, and NOS3 (also designated ecNOS), first identified in endothelial cells.

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PubMed References For nNOS Polyclonal Antibody

5 Western Blot References

Species / Dilution	Summary
Rat / 1:250	PA1-038 was used in western blot to investigate the distribution of nitric-oxide synthase mu in differentiated skeletal muscle
	The Journal of biological chemistry ( 1996; 271: 11204) <b>"Neuronal nitric-oxide synthase-mu, an alternatively spliced isoform expressed in differentiated skeletal muscle."</b> Author(s):Silvagno F,Xia H,Bredt DS PubMed Article URL: <a href="http://dx.doi.org/10.1074/jbc.271.19.11204">http://dx.doi.org/10.1074/jbc.271.19.11204</a>
Rat / 1:1000	PA1-038 was used in western blot to study gender differences in constitutive NOS expression and activity in pressure overloaded rats
	American journal of physiology. Heart and circulatory physiology ( 2007; 293: H2650) <b>"Effects of sex differences on constitutive nitric oxide synthase expression and activity in response to pressure overload in rats."</b> Author(s):Loyer X,Oliviero P,Damy T,Robidel E,Marotte F,Heymes C,Samuel JL PubMed Article URL: <a href="http://dx.doi.org/10.1152/ajpheart.00883.2007">http://dx.doi.org/10.1152/ajpheart.00883.2007</a>
Rat / 1:500	PA1-038 was used in western blot to study the role of NOS-1-derived NO in the altered contractile response due to increased beta3-adrenoceptor stimulation in diabetic cardiomyopathy
	Anesthesiology ( 2007; 107: 452) <b>"Altered contractile response due to increased beta3-adrenoceptor stimulation in diabetic cardiomyopathy: the role of nitric oxide synthase 1-derived nitric oxide."</b> Author(s):Amour J,Loyer X,Le Guen M,Mabrouk N,David JS,Camors E,Carusio N,Vivien B,Andriantsitohaina R,Heymes C, Riou B PubMed Article URL: <a href="http://dx.doi.org/10.1097/01.anes.0000278909.40408.24">http://dx.doi.org/10.1097/01.anes.0000278909.40408.24</a>
Rat / 1:5,000	PA1-038 was used in western blot to investigate the characteristics of nitric oxide synthase in vivo
	Nature ( 1991; 351: 714) <b>"Cloned and expressed nitric oxide synthase structurally resembles cytochrome P-450 reductase."</b> Author(s):Bredt DS,Hwang PM,Glatt CE,Lowenstein C,Reed RR,Snyder SH PubMed Article URL: <a href="http://dx.doi.org/10.1038/351714a0">http://dx.doi.org/10.1038/351714a0</a>
Rat / 1:1000	PA1-038 was used in western blot to study levels of protein kinase C and NOS activity in brain regions of rats exposed to sub chronic low level lead
	Molecular and cellular biochemistry ( 2001; 223: 27) <b>"Levels of protein kinase C and nitric oxide synthase activity in rats exposed to sub chronic low level lead."</b> Author(s):Ramesh GT,Jadhav AL PubMed Article URL: <a href="http://dx.doi.org/10.1023/a:1017549003114">http://dx.doi.org/10.1023/a:1017549003114</a>

1 Immunohistochemistry References

Species / Dilution	Summary
Mouse / Not Cited	PA1-038 was used in immunohistochemistry to review the role of reactive nitrogen and oxygen species in airway inflammation
	European journal of pharmacology ( 2001; 429: 251) <b>"Reactive nitrogen and oxygen species in airway inflammation."</b> Author(s):Folkerts G,Kloek J,Muijsers RB,Nijkamp FP PubMed Article URL: <a href="http://dx.doi.org/10.1016/s0014-2999(01)01324-3">http://dx.doi.org/10.1016/s0014-2999(01)01324-3</a>

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