nNOS (Phospho Ser852) Rabbit pAb

CatalogNo: YP0195

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat,Monkey

Applications
- WB,IHC,IF,ELISA

MW
- 130-160kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
IF 1:200-1:1000
ELISA 1:20000
Not yet tested in other applications.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human n-NOS around the phosphorylation site of Ser852. AA range:818-867

Specificity	Phospho-NOS1 (S852) Polyclonal Antibody detects endogenous levels of NOS1 protein only when phosphorylated at S852.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):FNsVS

Target Information

Gene name	NOS1
Protein Name	Nitric oxide synthase brain

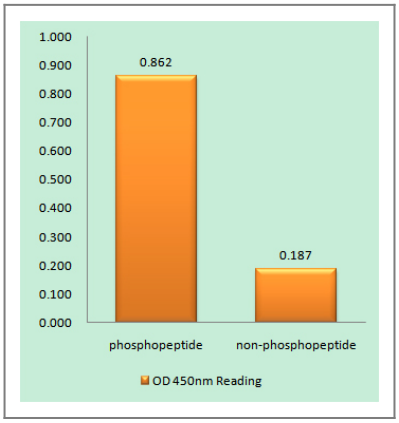
Organism	Gene ID	UniProt ID
Human	4842;	P29475;
Mouse	18125;	Q9Z0J4;
Rat	24598;	P29476;

Cellular Localization	Cell membrane , sarcolemma; Peripheral membrane protein. Cell projection , dendritic spine . In skeletal muscle , it is localized beneath the sarcolemma of fast-twitch muscle fiber by associating with the dystrophin glycoprotein complex. In neurons , enriched in dendritic spines (By similarity) . .
Tissue specificity	Isoform 1 is ubiquitously expressed: detected in skeletal muscle and brain , also in testis , lung and kidney , and at low levels in heart , adrenal gland and retina. Not detected in the platelets. Isoform 3 is expressed only in testis. Isoform 4 is detected in testis , skeletal muscle , lung , and kidney , at low levels in the brain , but not in the heart and adrenal gland.

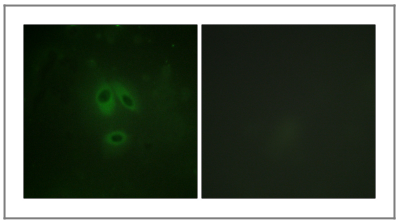
Function

Alternative products:Isoform 3 is produced by different alternative splicing events implicating either the untranslated exons TEX1 (TN-NOS) or TEX1B (TN-NOSB) leading to a N-terminus truncated protein which possesses enzymatic activity comparable to that of isoform 1. The C-terminal truncated isoform 4 is produced by insertion of the TEX2 exon between exons 3 and 4 of isoform 1 , leading to a frameshift and a premature stop codon ,Catalytic activity:L-arginine + n NADPH + n H (+) + m O (2) = citrulline + nitric oxide + n NADP (+) . ,cofactor:Binds 1 FAD. ,cofactor:Binds 1 FMN. ,cofactor:Heme group. ,cofactor:Tetrahydrobiopterin (BH4) . May stabilize the dimeric form of the enzyme. ,Disease:Genetic variations in NOS1 gene are associated with susceptibility to infantile hypertrophic pyloric stenosis type 1 (IHPS1) [MIM:179010]. IHPS has an incidence of 1-5 per 1'000 live births in whites and a marked preponderance of males to females (4:1) . IHPS is the most frequent disorder requiring surgery in the first year of life. The disorder is characterized by hypertrophy and hyperplasia of the circular muscle layer of the pylorus , leading to persistent vomiting 2-12 weeks after birth. Defective pyloric relaxation and increased pyloric smooth muscle mass have been suggested to be responsible for gastric-outlet obstruction. ,Domain:The PDZ domain in the N-terminal part of the neuronal isoform participates in protein-protein interaction , and is responsible for targeting nNos to synaptic membranes in muscles. ,enzyme regulation:Stimulated by calcium/calmodulin. Inhibited by n-Nos-inhibiting protein (PIN) which may prevent the dimerization of the protein. Inhibited by NOSIP. ,Function:Produces nitric oxide (NO) which is a messenger molecule with diverse functions throughout the body. In the brain and peripheral nervous system , NO displays many properties of a neurotransmitter. ,online information:Nitric oxide synthase entry ,similarity:Belongs to the NOS family. ,similarity:Contains 1 FAD-binding FR-type domain. ,similarity:Contains 1 flavodoxin-like domain. ,similarity:Contains 1 PDZ (DHR) domain. ,subcellular location:In skeletal muscle , it is localized beneath the sarcolemma of fast-twitch muscle fiber by associating with the dystrophin glycoprotein complex. In neurons , enriched in dendritic spines. ,subunit:Homodimer. Interacts with DLG4; the interaction possibly being prevented by the association between NOS1 and CAPON. Forms a ternary complex with CAPON and RASD1. Forms a ternary complex with CAPON and SYN1. Interacts with ZDHHC23. Interacts with NOSIP; which may impair its synaptic location (By similarity) . Interacts with HTR4. ,tissue specificity:Isoform 1 is ubiquitously expressed: detected in skeletal muscle and brain , also in testis , lung and kidney , and at low levels in heart , adrenal gland and retina. Not detected in the platelets. Isoform 3 is expressed only in testis. Isoform 4 is detected in testis , skeletal muscle , lung , and kidney , at low levels in the brain , but not in the heart and adrenal gland. ,

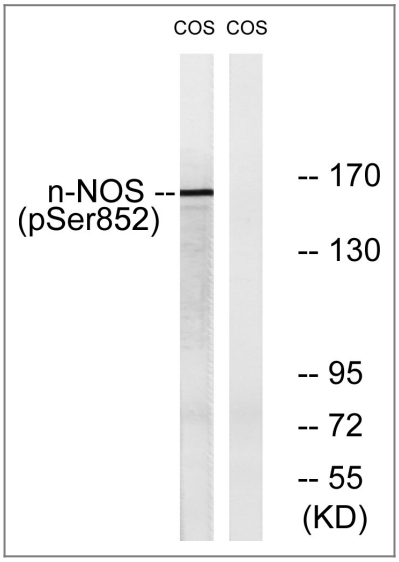
Validation Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using n-NOS (Phospho-Ser852) Antibody



Immunofluorescence analysis of HeLa cells, using n-NOS (Phospho-Ser852) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from A549 cells, using n-NOS (Phospho-Ser852) Antibody. The lane on the right is blocked with the phospho peptide.

Contact information

Orders:	order@immunoway.com
Support:	tech@immunoway.com
Telephone:	877-594-3616 (Toll Free), 408-747-0185
Website:	http://www.immunoway.com
Address:	2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information:
nNOS (Phospho Ser852) Rabbit pAb

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