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Anti-iNOS (Tyr-1055) [conserved site], Phosphospecific Antibody

Catalog # AN1869

Product Information

Application	WB, ICC
Primary Accession	P35228
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	131117

Additional Information

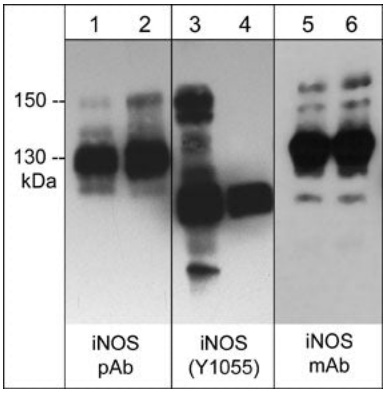
Gene ID	4843
Other Names	Nos2 nitric oxide synthase 2, inducible, macrophage, NOS, type II, NOSII, Hepatocyte
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-iNOS (Tyr-1055) [conserved site], Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

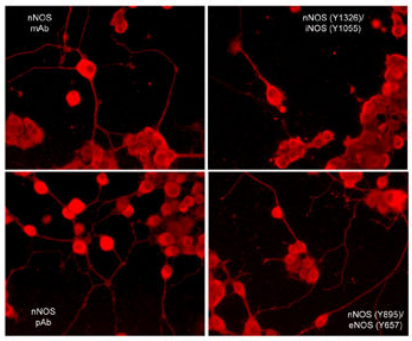
Nitric oxide synthases (NOS), the enzymes responsible for synthesis of NO, are homodimers whose monomers are themselves two fused enzymes: a cytochrome reductase and a cytochrome that requires three cosubstrates (L-arginine, NADPH, and oxygen) and five cofactors or prosthetic groups (FAD, FMN, calmodulin, tetrahydrobiopterin, and heme). Several distinct NOS isoforms are produced from three distinct genes, inducible NOS (iNOS, NOS-II), neuronal NOS (bNOS, NOS-I), and endothelial NOS (eNOS, ecNOS, NOS-III). The inducible form of NOS, iNOS, is Ca2+ independent and is expressed in a broad range of cell types in response to stimulation with cytokines and exposure to microbial products. Phosphorylation of iNOS may regulate its activity and stability. Src kinase-induced phosphorylation of Tyr-1055 in iNOS reduces proteasomal degradation of iNOS, leading to increased NO production. Thus, phosphorylation may be an additional control for regulating iNOS activity in response to inflammatory conditions.

Images

Western blot analysis of mouse macrophages (J774A.1) treated with LPS (1 µg/ml) for 18 hrs followed by



pervanadate (1 mM) for 30 min. (lanes 1, 3 & 5). The blots were then treated with akaline phosphatase (lanes 2, 4 & 6). Blots were probed with rabbit polyclonal anti-inducible Nitric Oxide Synthase (iNOS) (lanes 1 & 2), anti-iNOS (Tyr-1055) (lanes 3 & 4), and mouse monoclonal anti-iNOS (lanes 5 & 6).



Immunocytochemical labeling of nNOS phosphorylation in rat PC12 cells differentiated with NGF. The cells were probed with mouse monoclonal (mAb) nNOS (NM4011), and rabbit polyclonal (pAb) nNOS (C-terminal region), nNOS (Tyr-895)/eNOS (Tyr-657), and nNOS (Tyr-1326)/iNOS (Tyr-1055). The antibodies were detected using appropriate secondary antibody conjugated to DyLight® 594.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.