

#2977 Store at -20°C

iNOS Antibody



✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #4843
Swiss-Prot Acc. #P29477

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	M, (H)	130 kDa	Rabbit**

Background: Nitric Oxide Synthase (NOS) catalyses the formation of nitric oxide (NO) and citrulline from L-arginine, oxygen and cofactors. Three family members have been characterized: neuronal NOS (nNOS), which is found primarily in neuronal tissue; inducible NOS (iNOS), which is induced by interferon γ and lipopolysaccharides in the kidney or cardiovascular system; and endothelial NOS (eNOS), which is expressed in blood vessels (1). NO is a messenger molecule with diverse functions throughout the body including vascular integrity, homeostasis, synaptic plasticity, long-term potentiation, learning, and memory (2,3).

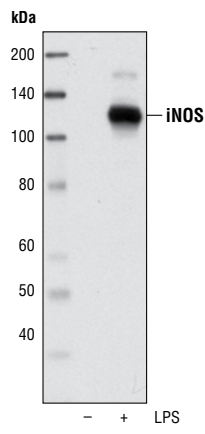
Nitric oxide produced by iNOS is involved in host defense against protozoa, bacteria, fungi and viruses. Unlike constitutively expressed eNOS and nNos, iNOS is not usually expressed in quiescent cells. iNOS is transcriptionally induced in response to bacterial endotoxins such as LPS and proinflammatory cytokines in macrophages and various other cell types. Transcription factors involved in iNOS transcription include NF- κ B, AP-1 and STAT. Different signaling pathways either promote (Jak1/2, PKC, c-Raf, p38 MAP kinase and p44/42 MAP kinase) or inhibit (PI3 kinase) iNOS expression depending on stimulus and cell type (4).

Specificity/Sensitivity: iNOS Antibody detects endogenous levels of total iNOS protein.

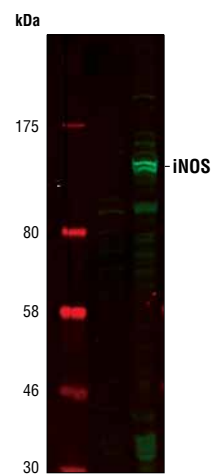
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Ser1000 of human iNOS. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Tsutsui, M. (2004) *J Atheroscler Thromb* 11, 41–8.
- (2) Son, H. et al. (1996) *Cell* 87, 1015–23.
- (3) Hawkins, R.D. (1996) *Neuron* 16, 465–7.
- (4) Bogdan, C. (2001) *Nat Immunol* 2, 907–16.



Western blot analysis of extracts from Raw264.7 cells, untreated or LPS-treated (1 µg/ml for 6 h), using iNOS Antibody.



Western blot analysis of extracts from Raw264.7 cells, untreated or LPS-treated (1 µg/ml for 6 h), using iNOS Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.