

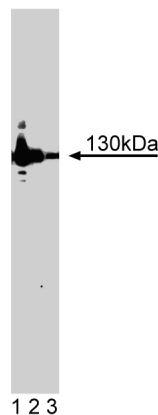
Technical Data Sheet

Purified Mouse Anti-Mouse iNOS**Product Information**

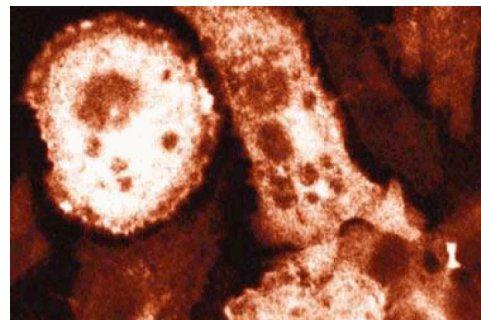
Material Number:	610431
Alternate Name:	NOS Type II
Size:	50 µg
Concentration:	250 µg/ml
Clone:	54/iNOS
Immunogen:	Mouse iNOS aa. 961-1144
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Mouse
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Nitric oxide synthase (NOS), a cell-type specific enzyme, catalyzes the synthesis of nitric oxide (NO). NO is a short-lived radical that transmits cellular signals involved in vasorelaxation, neurotransmission, and cytotoxicity. In macrophages and other cell types, NOS (iNOS or macNOS) activity increases following exposure to cytokines (IFN-γ, TNF-α, and IL-1) and microbial products (lipopolysaccharide (LPS)). iNOS is activated independently of Ca²⁺/calmodulin and its level of expression is tightly controlled by several transcription factors, including NFκB. Data indicates that TGF-β affects translation of *iNOS* mRNA and decreases iNOS protein stability. Normally undetectable in brain tissue, *iNOS* mRNA has been observed in CNS tissues of animals under experimental pathologic conditions. iNOS and nNOS share 51% amino acid homology with the greatest degree of divergence in the calmodulin binding domain. This antibody has been reported to cross-react with nNOS and eNOS.



Western blot analysis of iNOS/NOS Type II on a lysate from mouse macrophages (RAW 264.7) stimulated with 10 ng/mL IFNγ and 1 µg/mL LPS for 12 hours.
Lane 1: 1:2000, lane 2: 1:4000, lane 3: 1:8000 dilution of the mouse anti-iNOS/NOS Type II antibody.



Immunofluorescence staining of mouse macrophages stimulated with 10 ng/mL IFNγ and 1 µg/mL LPS.

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes**Application**

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development

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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611473	Mouse Macrophage + IFN γ /LPS Lysate	500 μ g	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Resta TC, O'Donoghue TL, Earley S, Chicoine LG, Walker BR. Unaltered vasoconstrictor responsiveness after iNOS inhibition in lungs from chronically hypoxic rats. *Am J Physiol*. 1999; 276(1 Pt 1):L122-L130. (Biology: Western blot)

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Xie QW, Cho HJ, Calaycay J, et al. Cloning and characterization of inducible nitric oxide synthase from mouse macrophages. *Science*. 1992; 256(5054):225-228. (Biology)

Zadeh MS, Kolb JP, Geromin D. Regulation of ICAM-1/CD54 expression on human endothelial cells by hydrogen peroxide involves inducible NO synthase. *J Leukoc Biol*. 2000; 67(3):327-334. (Biology: Flow cytometry)

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