Technical Data Sheet

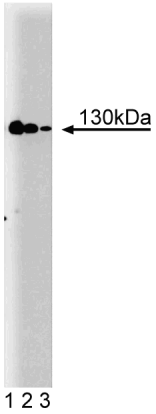
Purified Mouse Anti-iNOS/NOS Type II

Product Information

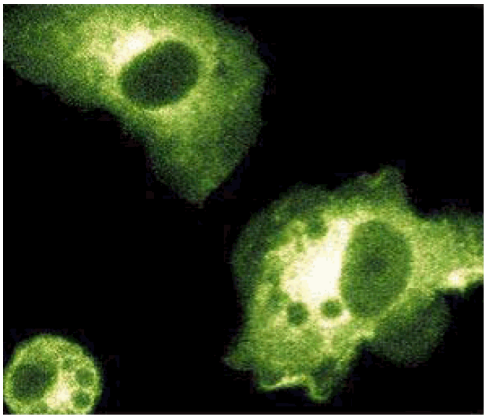
Material Number:	**610328**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	6/iNOS/NOS Type II
Immunogen:	Mouse iNOS aa. 961-1144
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Mouse
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

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.



Western blot analysis of iNOS/NOS Type II on a cell lysate from mouse macrophages (RAW 264.7) stimulated with 10 ng/mL IFNγ and 1 µg/mL LPS for 12 hours. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 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
Immunofluorescence	Tested During Development
Immunoprecipitation	Tested During Development
Immunohistochemistry	Not Recommended

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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 + IFNγ/LPS Lysate	500 µg	(none)
610330	FITC Mouse Anti-iNOS/NOS Type II	50 µg	6/iNOS/NOS Type II
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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

Heneka MT, Klockgether T, Feinstein DL. Peroxisome proliferator-activated receptor-gamma ligands reduce neuronal inducible nitric oxide synthase expression and cell death in vivo. *J Neurosci.* 2000; 20(18):6862-6867. (Biology: Immunohistochemistry, Western blot)

Marrogi A, Pass HI, Khan M, Metheny-Barlow LJ, Harris CC, Gerwin BI. Human mesothelioma samples overexpress both cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (NOS2): in vitro antiproliferative effects of a COX-2 inhibitor. *Cancer Res.* 2000; 20(18):6862-6867. (Biology: Immunofluorescence, Immunohistochemistry)

Miles PR, Bowman L, Rao KM, Baatz JE, Huffman L. Pulmonary surfactant inhibits LPS-induced nitric oxide production by alveolar macrophages. *Am J Physiol.* 1999; 276(1):L186-L196. (Biology: Western blot)

Sciorati C, Rovere P, Ferrarini M, Heltai S, Manfredi AA, Clementi E. Autocrine nitric oxide modulates CD95-induced apoptosis in gammadelta T lymphocytes. *J Biol Chem.* 1997; 272(37):23211-23215. (Biology: Flow cytometry, Western blot)

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)