Technical Data Sheet

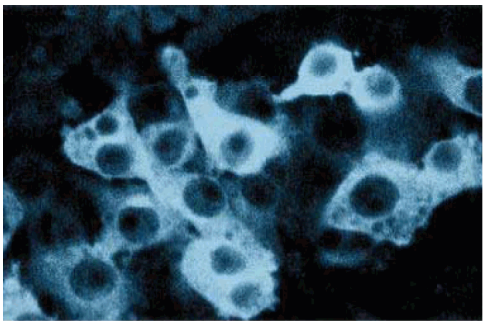
FITC Mouse Anti-iNOS/NOS Type II

Product Information

Material Number:	**610331**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	6/iNOS/NOS Type II
Immunogen:	Mouse iNOS aa. 961-1144
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Mouse
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.



Immunofluoresence staining of iNOS/NOS Type II on mouse macrophages (RAW 264.7) treated with 10 ng/mL IFNγ + 1 µg/mL LPS for 12 hrs.

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

Fluorescence microscopy	Routinely Tested

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

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Koprowski H, Zheng YM, Heber-Katz E, et al. In vivo expression of inducible nitric oxide synthase in experimentally induced neurologic diseases. *Proc Natl Acad Sci U S A.* 1993; 90(7):3024-3027. (Biology)

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Siedlar M, Mytar B, Krzeszowiak A, et al. Demonstration of iNOS-mRNA and iNOS in human monocytes stimulated with cancer cells in vitro. *J Leukoc Biol.* 1999; 65(5):597-604. (Biology: Flow cytometry, Immunofluorescence)

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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)