# iNOS Monoclonal Antibody (CXNFT), Alexa Fluor 488, eBioscience™

| Product Details | |
|---|---|
| Size | 100 µg |
| Species | Human, Mouse, Rat |
| Published Species | Mouse |
| Expression System | Rat / IgG2a, kappa |
| Recommended Isotype Control | Rat IgG2a kappa Isotype Control (eBR2a), Alexa Fluor 488, eBioscience™ |
| Class | Monoclonal |
| Type | Antibody |
| Clone | CXNFT |
| Conjugate | Alexa Fluor® 488 |
| Form | Liquid |
| Concentration | 0.5 mg/mL |
| Purification | Affinity chromatography |
| Storage buffer | PBS, pH 7.2, with 0.1% gelatin |
| Contains | 0.09% sodium azide |
| Storage Conditions | 4° C, store in dark, DO NOT FREEZE! |
| RRID | AB_2574423 |

| Applications | Tested Dilution | Publications |
|---|---|---|
| Flow Cytometry (Flow) | 0.06 µg/test | 10 Publications |
| Immunocytochemistry (ICC) | 1:100 | - |
| Immunofluorescence (IF) | 1:100 | - |
| Western Blot (WB) | 1:1000 | - |

### Product Specific Information

Description: This CXNFT monoclonal antibody reacts to mouse NOS2 (inducible NOS, iNOS). Nitric oxide synthase enzymes catalyze the formation of nitric oxide from L-arginine through an NADPH- and oxygen-dependent mechanism. There are three isoforms of NOS that are encoded by three separate genes. NOS1 (neuronal NOS, nNOS) and NOS3 (endothelial NOS, eNOS) are constitutively expressed, while NOS2 is induced in response to bacterial endotoxins and inflammatory cytokines such as IFN gamma and TNF alpha. NOS2 is expressed by myeloid-derived suppressor cells and M1 macrophages but not alternatively activated M2 macrophages. NOS enzymes are functionally active only when they form homodimers, and dimerization of NOS2 occurs at steady-state concentrations of free Ca2+ such that NOS2 is functionally active when it is produced.

Applications Reported: This CXNFT antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

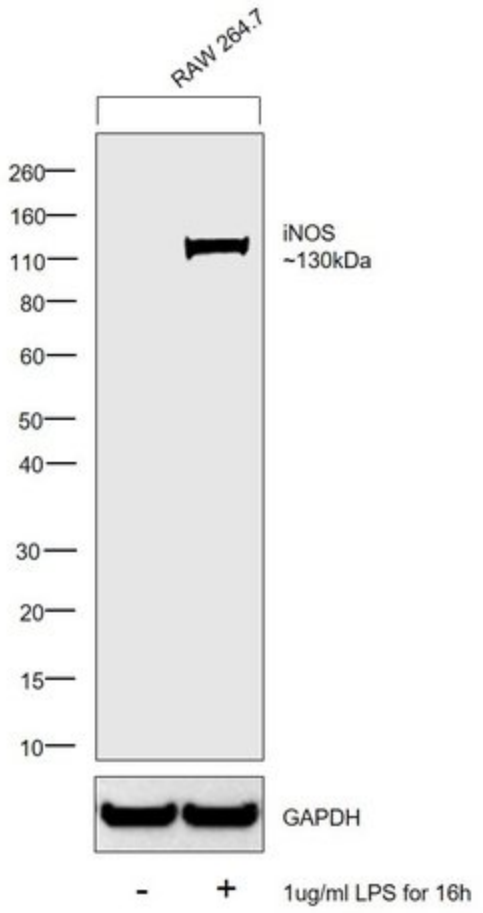
Applications Tested: This CXNFT antibody has been tested by intracellular staining and flow cytometric analysis of stimulated mouse thioglycolate-elicited peritoneal exudate cells using the intracellular Fixation and Permeabilization Buffer Set (cat. 88-8824)

and protocol. The Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) may also be used with similar results. This can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

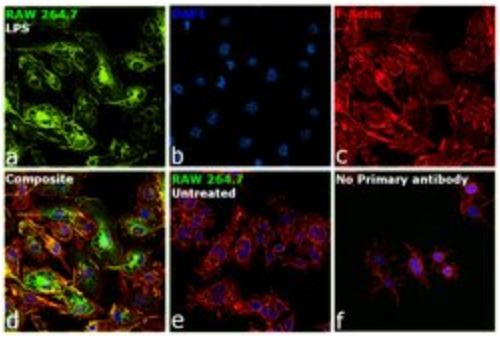
Excitation: 488 nm; Emission: 519 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

## Advanced Verification Data

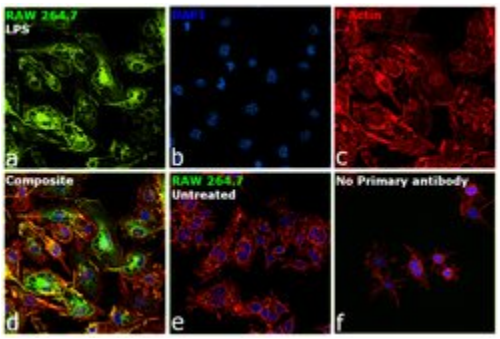



**iNOS Antibody (53-5920-82)**
Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot using iNOS Monoclonal Antibody (CXNFT), Alexa Fluor 488, eBioscience™ (Product #53-5920-82), shows increased expression of iNOS upon treatment of RAW264.7 with LPS. Cell treatment validation info.




**iNOS Antibody (53-5920-82)**
Detection of altered expression of the target protein by cell treatment demonstrates antibody specificity. Immunofluorescence analysis using iNOS Monoclonal Antibody (CXNFT), Alexa Fluor 488, eBioscience™ (Product # 53-5920-82), shows increased expression of iNOS upon treatment of RAW264.7 cells with LPS. Cell treatment validation info.

## Product Images For iNOS Monoclonal Antibody (CXNFT), Alexa Fluor 488, eBioscience™




**iNOS Antibody (53-5920-82) in ICC**
Immunofluorescence analysis of Nitric oxide synthase, inducible, was performed using 70% confluent log phase RAW 264.7 treated with LPS (1 µg/mL for 16h). The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with iNOS Monoclonal Antibody (CXNFT), Alexa Fluor 488, eBioscience™ (Product # 53-5920-82) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight (Panel a: Green). Nuclei (Panel b:Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1: 300). Panel d represents the merged image showing Cytoplasmic localization. Panel e represents untreated RAW 264.7 cells showing low expression of iNOS. Panel f represents control cells with a matched isotype control antibody to assess background. The images were captured at 60x magnification.

### View more figures on thermofisher.com

## 10 References

### Flow Cytometry (10)

**Journal of cellular and molecular medicine**

**Enhanced alleviation of aGVHD by TGF-1-modified mesenchymal stem cells in mice through shifting M into M2 phenotype and promoting the differentiation of Treg cells.**

"53-5920 was used in Flow cytometry/Cell sorting to study the mechanism by which mesenchymal stem cells can treat steroid resistant acute graft-versus-host disease."

Authors: Wu R,Liu C,Deng X,Chen L,Hao S,Ma L

**Species**
Mouse

**Dilution**
Not Cited

**Year**
2020

**Nature communications**

**Eosinophil recruitment is dynamically regulated by interplay among lung dendritic cell subsets after allergen challenge.**

"53-5920 was used in Flow cytometry/Cell sorting to suggest that different lung antigen-presenting cells modulate lung cDC1-mediated eosinophil recruitment dynamically."

Authors: Yi S,Zhai J,Niu R,Zhu G,Wang M,Liu J,Huang H,Wang Y,Jing X,Kang L,Song W,Shi Y,Tang H

**Species**
Mouse

**Dilution**
Not Cited

**Year**
2018

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