

iNOS Monoclonal Antibody (CXNFT), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	CXNFT
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_2572890

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	4 Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunocytochemistry (ICC/IF)	1:100	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	37 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

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, and western blotting. (Fluorochrome conjugated CXNFT is recommended for use in intracellular flow cytometry.).

Applications Tested: This CXNFT antibody has been tested by immunoblot analysis of LPS-stimulated mouse thioglycolate-elicited peritoneal exudate cells or by intracellular staining and flow cytometric analysis of mouse NOS2-transiently transfected HEK-293T cells. For immunoblot analysis this can be used at 5 µg/mL. For intracellular staining this can be used at less than or equal to 0.25 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

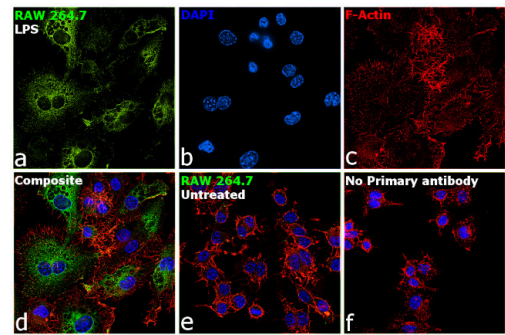
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For iNOS Monoclonal Antibody (CXNFT), eBioscience™

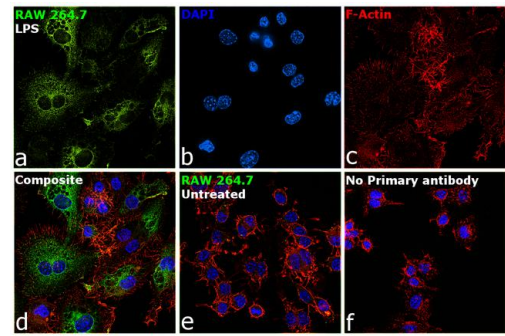
iNOS Antibody (14-5920-82) in ICC/IF

Immunofluorescence analysis of Nitric oxide synthase, inducible, was performed using 70% confluent log phase RAW 264.7 cells treated 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), eBioscience™ (Product # 14-5920-82) at 1:100 dilution in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 488 (Product # A11006), (1:2000 dilution), for 45 minutes at room temperature (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 with low expression of iNOS. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60x magnification.



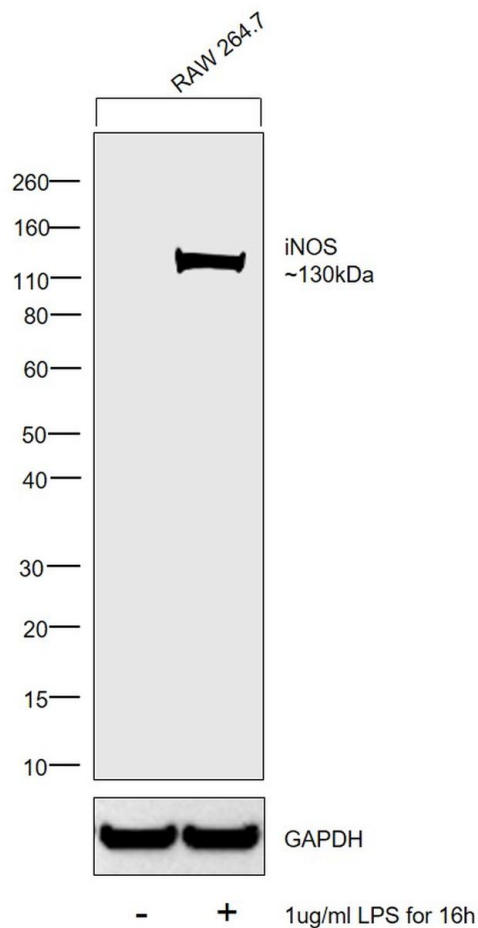
iNOS Antibody (14-5920-82)

Detection of altered expression of the target protein by cell treatment demonstrates antibody specificity. Immunofluorescence analysis using iNOS Monoclonal Antibody (CXNFT), eBioscience™ (Product # 14-5920-82), shows increased expression of iNOS upon treatment of RAW264.7 with LPS. {TM}



iNOS Antibody (14-5920-82) in WB

Western blot was performed using Anti-iNOS Monoclonal Antibody (CXNFT), eBioscience™ (Product # 14-5920-82) and a 130 kDa band corresponding to Nitric oxide synthase, inducible, was observed to be upregulated in RAW 264.7 cells upon treatment with LPS. Whole cell extracts (30 µg lysate) of RAW 264.7 cells (Lane 1) and RAW 264.7 treated with LPS (1 µg/mL for 16h) (Lane 2) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with F(ab2-Rabbit anti-Rat IgG (H+L Secondary Antibody, HRP (Product # PA1-29927, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



[View more figures on thermofisher.com](https://www.thermofisher.com)

Western Blot (4)

<p>Molecular medicine reports</p> <p>1,25DihydroxyVitamin D3 induces macrophage polarization to M2 by upregulating Tcell Igmucin3 expression.</p> <p>"Published figure using iNOS monoclonal antibody (Product # 14-5920-82) in Western Blot"</p> <p>Authors: Liang S,Cai J,Li Y,Yang R</p>	<p>Year 2019</p> <p>Species Mouse</p> <p>Dilution 1:800</p>
<p>Foods (Basel, Switzerland)</p> <p>Preventive Effects of Different Fermentation Times of Shuidouchi on Diphenoxylate-Induced Constipation in Mice.</p> <p>"14-5920-82 was used in Western Blot to compare the prevention effects of Shuidouchi with different fermentation times on constipation in mice."</p> <p>Authors: Chen L,Zhang J,Suo H,Wang W,Wang H,Zhang Y,Hu Q,Zhao X,Li J</p>	<p>Year 2019</p> <p>Species Mouse</p> <p>Dilution 1:1000</p>

[View more WB references on thermofisher.com](#)

Immunohistochemistry (1)

<p>Glia</p> <p>The thrombin receptor modulates astroglia-neuron trophic coupling and neural repair after spinal cord injury.</p> <p>"14-5920-82 was used in Immunohistochemistry-immunofluorescence to demonstrate unique modulatory roles for PAR1 in regulating glial-neuron interactions, including the capacity for neurotrophic factor signaling, and underscore its position at neurobiological intersections critical for the response of the CNS to injury and the capacity for regenerative repair and restoration of function."</p> <p>Authors: Kim HN,Triplet EM,Radulovic M,Bouchal S,Kleppe LS,Simon WL,Yoon H,Scarlsbrick IA</p>	<p>Year 2021</p> <p>Species Mouse</p> <p>Dilution 1:200</p>
--	--

Immunocytochemistry (1)

<p>Journal of neuroinflammation</p> <p>Annexin A1 protects against cerebral ischemia-reperfusion injury by modulating microglia/macrophage polarization via FPR2/ALX-dependent AMPK-mTOR pathway.</p> <p>"Published figure using iNOS monoclonal antibody (Product # 14-5920-82) in Immunocytochemistry"</p> <p>Authors: Xu X,Gao W,Li L,Hao J,Yang B,Wang T,Li L,Bai X,Li F,Ren H,Zhang M,Zhang L,Wang J,Wang D,Zhang J, Jiao L</p>	<p>Year 2021</p>
--	-----------------------------

More applications with references on thermofisher.com

Flow (37)

Misc (1)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.