# Product Datasheet

## CYBB/NOX2 Antibody - BSA Free
## NBP2-41291

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

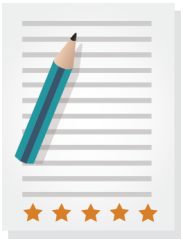
www.novusbio.com technical@novusbio.com

**Reviews: 1 Publications: 9**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP2-41291

Updated 9/9/2025 v.20.1





# NBP2-41291

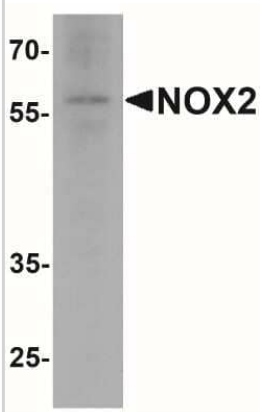
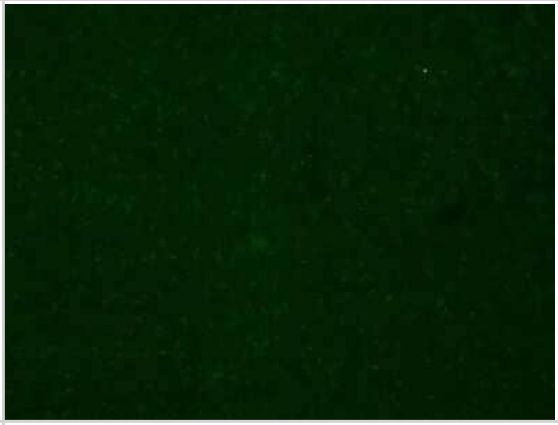
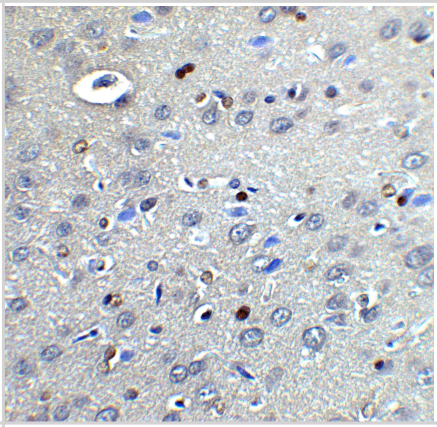
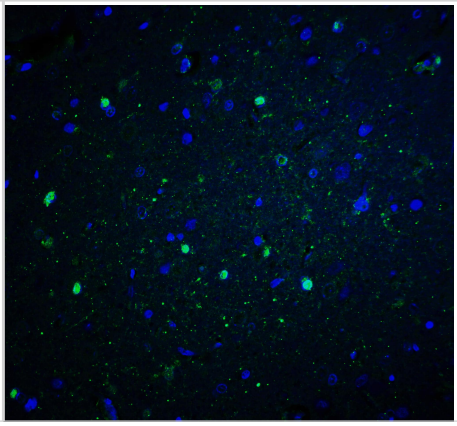
CYBB/NOX2 Antibody - BSA Free

| Product Information | |
|---|---|
| **Unit Size** | 0.1 mg |
| **Concentration** | 1 mg/ml |
| **Storage** | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Clonality** | Polyclonal |
| **Preservative** | 0.02% Sodium Azide |
| **Isotype** | IgG |
| **Purity** | Peptide affinity purified |
| **Buffer** | PBS |
| **Target Molecular Weight** | 58 kDa |

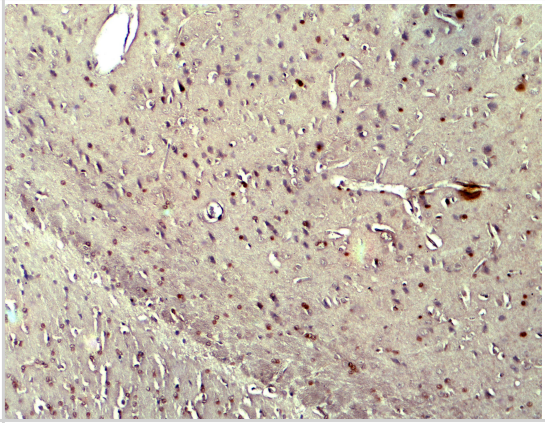
| Product Description | |
|---|---|
| **Description** | Novus Biologicals Rabbit CYBB/NOX2 Antibody - BSA Free (NBP2-41291) is a polyclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-CYBB/NOX2 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee. |
| **Host** | Rabbit |
| **Gene ID** | 1536 |
| **Gene Symbol** | CYBB |
| **Species** | Human, Mouse, Rat |
| **Reactivity Notes** | Immunogen displays the following percentage of sequence identity for non-tested species: Porcine (87%), Bovine (87%) |
| **Specificity/Sensitivity** | At least two isoforms are known to exist; this antibody will detect both isoforms. NOX2 is predicted to not cross-react with other NOX proteins. |
| **Immunogen** | Antibody was raised against a 15 amino acid peptide near the amino terminus of human NOX2. The immunogen is located within amino acids 140 - 190 of NOX2. Amino Acid Squence: NFARKRIKNPEGGLY |

| Product Application Details | |
|---|---|
| **Applications** | Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry |
| **Recommended Dilutions** | Western Blot 1-2 ug/ml, ELISA, Immunohistochemistry 2 ug/ml, Immunocytochemistry/ Immunofluorescence 20 ug/ml, Immunohistochemistry-Paraffin 2 ug/ml |

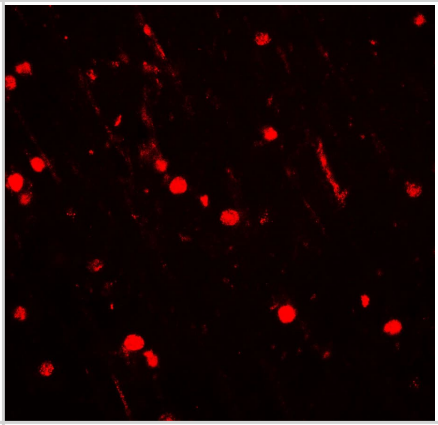
## Images

| | |
|---|---|
| Western Blot: CYBB/NOX2 Antibody [NBP2-41291] - Analysis of NOX2 in rat brain tissue lysate with NOX2 antibody at 1 ug/ml. |   |
| Immunohistochemistry: CYBB/NOX2 Antibody [NBP2-41291] - NOX2 expression in mouse cerebral cortex. Dilution 1:1000. This image was submitted via customer Review. |  |
| Immunohistochemistry: CYBB/NOX2 Antibody - BSA Free [NBP2-41291] - Immunohistochemistry of CYBB/NOX2 in rat brain tissue cells with CYBB/NOX2 antibody at 2 ug/ml. |  |
| Immunocytochemistry/ Immunofluorescence: CYBB/NOX2 Antibody - BSA Free [NBP2-41291] - Immunofluorescence of CYBB/NOX2 in rat brain tissue with CYBB/NOX2 antibody at 20 u/ml.<br><br>Green: CYBB/NOX2 Antibody<br>Blue: DAPI staining |  |

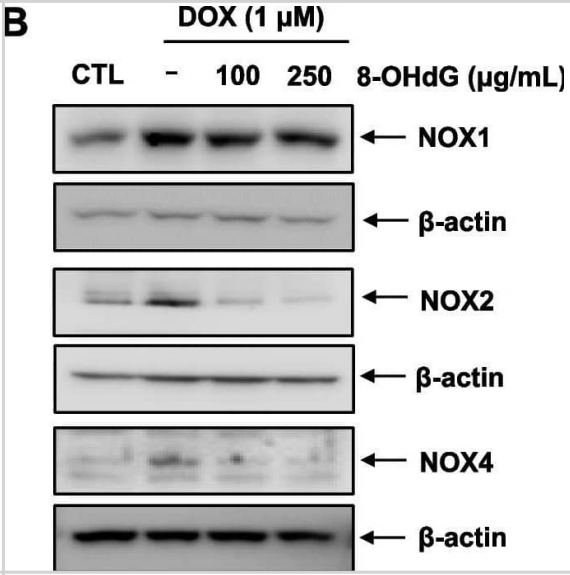
Immunohistochemistry: CYBB/NOX2 Antibody - BSA Free [NBP2-41291] - Immunohistochemistry of CYBB/NOX2 in rat brain tissue with CYBB/NOX2 antibody at 5 ug/ml.



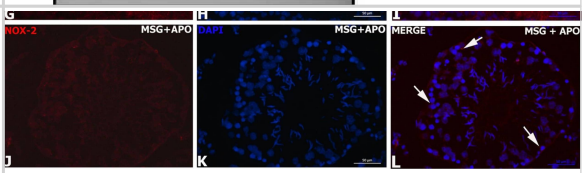
Immunocytochemistry/ Immunofluorescence: CYBB/NOX2 Antibody - BSA Free [NBP2-41291] - Immunofluorescence of CYBB/NOX2 in rat brain tissue with CYBB/NOX2 antibody at 20 ug/ml.



Exogenous 8-OHdG decreases NOX1/2/4 expression and NF-κB phosphorylation, and increases the reduced glutathione/oxidized glutathione ratio in DOX-treated H9c2 cells. A Rac1 activation assay. After H9c2 cells were treated with DOX (1 μM) and 8-OHdG (100 or 250 μg/mL) for 1 h, cell lysates were precipitated by p21-activated protein kinase (PAK) p21-binding domain (PBD) agarose beads and immunoblotted by Rac1 specific monoclonal antibody. B–D H9c2 cells were treated with 1 μM DOX and 100 μg/mL or 250 μg/mL 8-OHdG for 24 h. B–C Western blot analysis of the NOX1/2/4, p65, and phosphor-p65 protein levels of in DOX- and 8-OHdG-treated H9c2 cells. D GSH/GSSG ratio was determined using a glutathione assay kit. CTL, control; DOX, doxorubicin; 8-OHdG, 8-hydroxydeoxyguanosine; NOX, NADPH oxidase; GSH/GSSG, reduced glutathione/oxidized glutathione ratio. *P < 0.05 versus control; #P < 0.05 and ##P < 0.01 versus DOX-treated groups Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/36517746), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




Immunofluorescence analysis of NOX-2 in experimental groups (A–L). The nuclei were labeled with DAPI (blue). NOX-2 expression was similar in the control, APO, and MSG + APO groups. An increased number of NOX-2-positive cells (red) were observed in the MSG group. White arrows indicate NOX-2-positive cells. Scale bar: 50 μm. Image collected and cropped by CiteAb from the following open publication (https://www.mdpi.com/2075-1729/13/3/822), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications


Jiang T, Zhang Y, Guo Z et al. Mechanical Stress Induced NOX2 Promotes Endothelial Dysfunction in Ventilator-Induced Lung Injury: Potential Treatment with Quercetin. Advanced science (Weinheim, Baden-Wurttemberg, Germany) 2025-05-20 [PMID: 40391857]

Hwang S, Kim SH, Yoo KH et al. Exogenous 8-hydroxydeoxyguanosine attenuates doxorubicin-induced cardiotoxicity by decreasing pyroptosis in H9c2 cardiomyocytes BMC molecular and cell biology 2022-12-14 [PMID: 36517746] (Western Blot, Rat)

Blaise O, Duchesne C, Capuzzo E et al. Infected wound repair correlates with collagen I induction and NOX2 activation by cold atmospheric plasma NPJ Regenerative Medicine 2024-10-02 [PMID: 39358383]

Madhamanchi K, Madhamanchi P, Jayalakshmi S et al. Endoplasmic reticulum stress and unfolded protein accumulation correlate to seizure recurrence in focal cortical dysplasia patients Cell stress & chaperones 2022-10-18 [PMID: 36258150]

Acikel-Elmas M, Algilani SA, Sahin B et al. Apocynin Ameliorates Monosodium Glutamate Induced Testis Damage by Impaired Blood-Testis Barrier and Oxidative Stress Parameters Life (Basel, Switzerland) 2023-03-17 [PMID: 36983977] (IHC, Rat)

Sahin B, Acikel Elmas M, Bingol Ozakpinar O, Arbak S The Effects of Apocynin on Monosodium Glutamate Induced Liver Damage of Rats Heliyon 2023-07-01 [PMID: 37449146] (IHC, Mouse)

Peng L, Deng M, Huang Y et al. Scutellarin acts on the AR-NOX Axis to Remediate Oxidative Stress Injury in a Mouse Model of Cerebral Ischemia/Reperfusion Injury Phytomedicine 2022-06-11 [PMID: 35689902]

Cao L, Li X, Xu R et al. DUOX2, a common modulator in preventive effects of monoamine-based antidepressants on water immersion restraint stress- and indomethacin- induced gastric mucosal damage European Journal of Pharmacology 2020-03-01 [PMID: 32131022] (WB, Rat)

Bitar MS, Nader J, Al-Ali W et al. Hydrogen Sulfide Donor NaHS Improves Metabolism and Reduces Muscle Atrophy in Type 2 Diabetes: Implication for Understanding Sarcopenic Pathophysiology Oxid Med Cell Longev 2018-10-30 [PMID: 30510624] (WB, Rat)

**Novus Biologicals USA**
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

**Bio-Techne Canada**
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

**Bio-Techne Ltd**
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

**General Contact Information**
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

## Products Related to NBP2-41291

| | |
|---|---|
| NBP2-33376H | Blue Marker Antibody (6F4-F6) [HRP] |
| HAF008 | Goat anti-Rabbit IgG Secondary Antibody [HRP] |
| NB7160 | Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP] |
| NBP2-24891 | Rabbit IgG Isotype Control |

### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

**For more information on our 100% guarantee, please visit www.novusbio.com/guarantee**

**Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP2-41291**

**Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications**