

# Product Datasheet

## c-Fos Antibody (2H2) - BSA Free NBP2-50037

Unit Size: 0.1 ml

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

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Reviews: 1 Publications: 24**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NBP2-50037](http://www.novusbio.com/NBP2-50037)

Updated 2/23/2025 v.20.1

Earn rewards for product  
reviews and publications.

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NBP2-50037](http://www.novusbio.com/reviews/destination/NBP2-50037)



**NBP2-50037**

c-Fos Antibody (2H2) - BSA Free

**Product Information**

<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	2H2
<b>Preservative</b>	0.035% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	50% PBS, 50% glycerol
<b>Target Molecular Weight</b>	50-65 kDa

**Product Description**

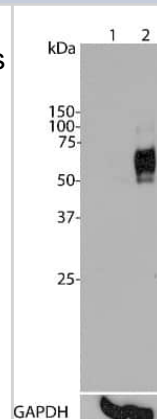
<b>Host</b>	Mouse
<b>Gene ID</b>	2353
<b>Gene Symbol</b>	FOS
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	Rat reactivity reported in scientific literature (PMID:33091429).
<b>Immunogen</b>	This c-Fos Antibody (2H2) was developed against full length recombinant human c-Fos protein expressed in and purified from E. coli. [UniProt# P01100]

**Product Application Details**

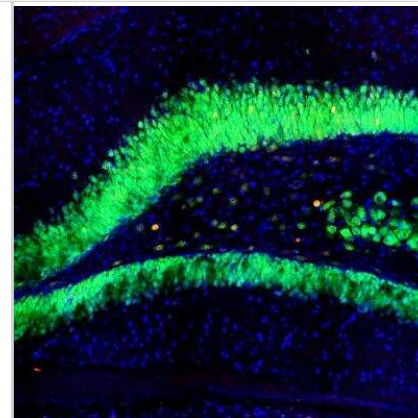
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Knockout Validated
<b>Recommended Dilutions</b>	Western Blot 1:1000 - 1:2000, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence 1:1000, Knockout Validated

**Images**

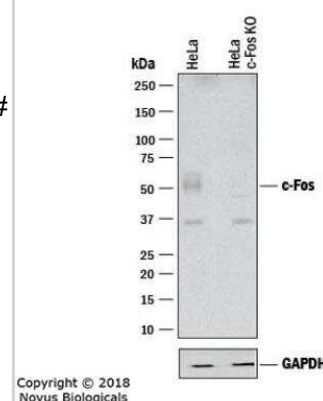
Western Blot: c-Fos Antibody (2H2) [NBP2-50037] - Top panel: Analysis of c-Fos expression in HeLa cells using NBP2-50037. Lane 1: HeLa cells were serum-starved for 36 hours. Lane 2: Serum-starved HeLa cells were stimulated with 20% FBS (fetal bovine serum) for 2 hours. NBP2-50037 recognizes bands in the range of 50-65 kDa, which represent multiple forms of c-Fos. Serum starvation attenuates c-Fos expression, while 20% FBS strongly stimulates c-Fos expression. Bottom panel: Blot was stripped and probed with monoclonal antibody against GAPDH (NB300-221) used as loading control.



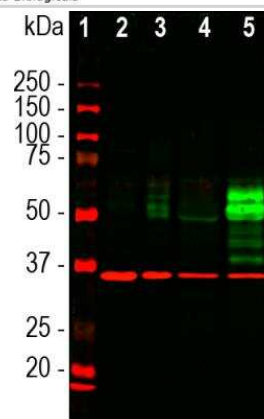
**Immunocytochemistry/Immunofluorescence: c-Fos Antibody (2H2) [NBP2-50037]** - Section of rat hippocampus stained with mouse monoclonal antibody to c-FOS NBP2-50037 in red and counterstained with rabbit polyclonal antibody to FOX3/NeuN. DAPI reveals nuclei of neurons and glia in blue. The hippocampal neurons stain green for FOX3/NeuN and a few also are expressing c-FOS, and so appear orange. These cells were spontaneously active at the time the animal was sacrificed.



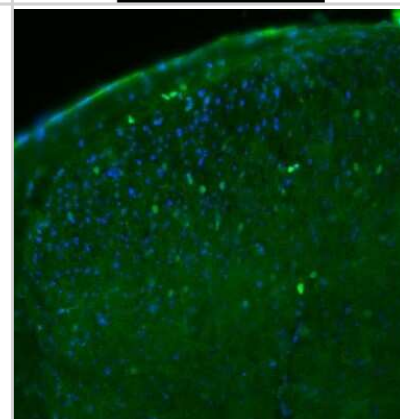
**Western Blot: c-Fos Antibody (2H2) [NBP2-50037]** - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and c-Fos knockout (KO) HeLa cell line. PVDF membrane was probed with 1:1000 of Mouse Anti-Human c-Fos Monoclonal Antibody (Catalog # NBP2-50037) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog #HAF018). Specific band was detected for c-Fos at approximately 52 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.



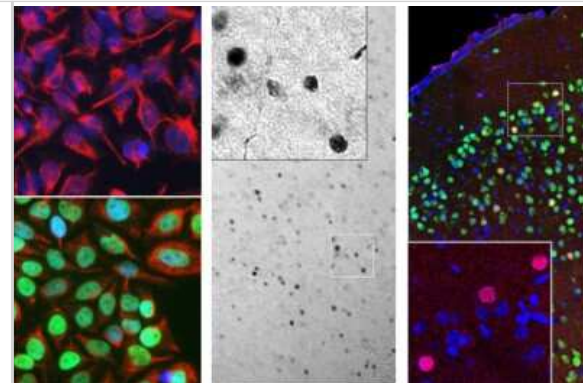
**Western Blot: c-Fos Antibody (2H2) [NBP2-50037]** - Analysis of cell lysates using mouse c-Fos mAb, dilution 1:1,000 (Green), and rabbit GAPDH pAb, dilution 1:20,000 (Red) used as a loading control. [1] protein standard (red), [2] HeLa cells in serum free media. [3] HeLa cells stimulated with 20% fetal bovine serum for 2hrs after 36hrs in serum free media. [4] rat cortical neurons. [5] rat cortical neurons treated with membrane depolarization buffer for 5hrs. Multiple bands at 50-65kDa in stimulated or treated cell lysates correspond to different forms of the c-Fos protein. The single band at 37 kDa represents GAPDH protein.



**Immunohistochemistry: c-Fos Antibody (2H2) [NBP2-50037]** - pAb 1:1000 (green), DAPI counterstain (blue) on 30 micron cryosection of mouse spinal cord. This image was submitted via customer Review.



Immunocytochemistry/Immunofluorescence: c-Fos Antibody (2H2) [NBP2-50037] - Left: NBP2-50037 staining (green) in HeLa cells, which were treated with serum-starvation for 36 hrs, followed by 2 hrs 20% FBS stimulation (bottom), or PBS treatment (top). Green c-Fos staining only localizes in the nuclei of stimulated cells, but not in un-stimulated cells. Cells are counter-stained with chicken pAb against Vimentin (NB300-223, red). Blue shows DAPI staining of nucleus. Middle: Mouse brain section (45  $\mu$ M; fixed by transcardial perfusion with 4% PFA) labeled with NBP2-50037 using a standard HRP-DAB staining technique. Cells expressing c-Fos show dark color in nucleus. Right: Mouse cortical section labeled with NBP2-50037 (red) and rabbit polyclonal anti-NeuN (NBP1-92716, green) using IF confocal. Neurons positive for c-Fos and RBFOX3/NeuN appear to be yellow. Inset shows an enlarged image of NBP2-50037 staining. Nuclei are labeled with Dapi (blue).



## Publications

Xi D, Long C, Lai M, Casella A et Al. Ablation of Oxytocin Neurons Causes a Deficit in Cold Stress Response J Endocr Soc 2017-12-22 [PMID: 29264556]

Devoght J, Comhair J, Morelli G, Rigo JM et Al. Dopamine-mediated striatal activity and function is enhanced in GlyR $\beta$ 2 knockout animals iScience 2023-08-09 [PMID: 37554441]

Wei HR, Tang L, Yang XL, Chen CM et Al. A microglial activation cascade across cortical regions underlies secondary mechanical hypersensitivity to amputation Cell Rep 2024-02-18 [PMID: 38368612]

Zhang J, Peng Y, Liu C et al. Dopamine D1-receptor-expressing pathway from the nucleus accumbens to ventral pallidum-mediated sevoflurane anesthesia in mice CNS neuroscience & therapeutics 2023-05-19 [PMID: 37208941]

Noguchi H, Arela JC, Ngo TT et al. Shh from mossy cells contributes to preventing NSC pool depletion after seizure-induced neurogenesis and in aging bioRxiv : the preprint server for biology 2023-08-22 [PMID: 37662214] (Immunohistochemistry, Mouse)

Hirofumi Noguchi, Jessica Chelsea Arela, Thomas Ngo, Laura Cocas, Samuel Pleasure, Joseph G Gleeson, John R Huguenard Shh from mossy cells contributes to preventing NSC pool depletion after seizure-induced neurogenesis and in aging eLife 2023-12-11 [PMID: 38079471]

Nagaoka K, Asaoka N, Nagayasu K et al. Enhancement of adenosine A2A signaling improves dopamine D2 receptor antagonist-induced dyskinesia via  $\beta$ -arrestin signaling Frontiers in neuroscience 2023-01-24 [PMID: 36760795] (IHC-Fr, Mouse)

Bao C, Huang J, Wu H et al. Moxibustion alleviates depression-like behavior in rats with Crohn's disease by inhibiting the kynurenine pathway metabolism in the gut-brain axis Frontiers in neuroscience 2022-12-07 [PMID: 36570839] (WB, Rat)

Kawai H, Bouchekioua Y, Nishitani N et al. Median raphe serotonergic neurons projecting to the interpeduncular nucleus control preference and aversion Nature communications 2022-12-22 [PMID: 36550097] (IHC-Fr, Mouse)

Details:  
Dilution used in IHC-Fr 1:200

Nagai Y, Kisaka Y, Nomura K et al. Dorsal raphe serotonergic neurons preferentially reactivate dorsal dentate gyrus cell ensembles associated with positive experience Cell reports 2023-02-22 [PMID: 36821440] (IHC, Mouse)

Zhai J, Li X, Hao H et al. Whisker Stimulation Alleviate ASD Behavior of BTBR Mice by Regulating Piezo2 Expression in DRG and Neuron Function in S1 and mPFC SSRN Electronic Journal 2022-12-20

Nagaoka K, Nagayasu K, Shirakawa H, Kaneko S Acetaminophen improves tardive akathisia induced by dopamine D2 receptor antagonists Journal of Pharmacological Sciences 2022-10-01 [PMID: 36522124] (IF/IHC, Rat)

More publications at <http://www.novusbio.com/NBP2-50037>



### **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](http://www.novusbio.com)  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NBP2-50037**

---

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
H00002353-P01-10ug	Recombinant Human c-Fos GST (N-Term) Protein

---

### **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](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NBP2-50037](http://www.novusbio.com/reviews/submit/NBP2-50037)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

