Product Datasheet

c-Fos Antibody (2H2) NBP2-50037

Unit Size: 0.1 ml

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





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NBP2-50037

c-Fos Antibody (2H2)

Product Information			
Unit Size	0.1 ml		
Concentration	1 mg/ml		
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.		
Clonality	Monoclonal		
Clone	2H2		
Preservative	0.035% Sodium Azide		
Isotype	IgG1		
Purity	Immunogen affinity purified		
Buffer	50% PBS, 50% glycerol		
Target Molecular Weight	50-65 kDa		
Product Description			
Host	Mouse		
Gene ID	2353		
Gene Symbol	FOS		
Species	Human, Mouse, Rat		
Reactivity Notes	Rat reactivity reported in scientific literature (PMID:33091429).		
Immunogen	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			
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Knockout Validated		
Recommended Dilutions	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.

kDa	1	2
150- 100- 75-		
50-		
37-		
25-		
APDH	-	200



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.

Knockout Validated: c-Fos Antibody (2H2) [NBP2-50037] - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and c-Fox knockout (KO) HeLa cell line. PVDF membrane was probed with 1:1000 of Mouse Anti-Human c-Fox Monoclonal Antibody (Catalog # NBP2-50037) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog #HAF018). Specific band was detected for c-Fox 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 proten. 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.



C-Fos

GAPDH

kDa

250

150

100

37

25

20 -

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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 uM; 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

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 ?-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)

Takayama K, Tobori S, Andoh C et al. Autism Spectrum Disorder Model Mice Induced by Prenatal Exposure to Valproic Acid Exhibit Enhanced Empathy-Like Behavior via Oxytocinergic Signaling Biological & pharmaceutical bulletin 2022-07-31 [PMID: 35908894] (IHC-Fr, Mouse)

Details:

Dilution used for IHC 1:500

Li Y, Zhu S, Xie K et al. TLR4 in Tph2 neurons modulates anxiety-related behaviors in a sex-dependent manner Neuropharmacology 2022-09-15 [PMID: 35787402] (ICC/IF)

Details: Dilution: 1:1000

Huang ST, Chen BB, Song ZJ et al. Unraveling the role of Epac1-SOCS3 signaling in the development of neonatal-CRD-induced visceral hypersensitivity in rats CNS neuroscience & therapeutics 2022-06-15 [PMID: 35702948] (IF/IHC, Rat)

Figueroa C, Yang H, DiSpirito J Et al. Morphine exposure alters Fos expression in a sex-, age-, and brain regionspecific manner during adolescence Developmental psychobiology 2021-09-01 [PMID: 34423851] (IF/IHC, Rat)

Cao P, Chen C, Liu A Et Al. Early-life inflammation promotes depressive symptoms in adolescence via microglial engulfment of dendritic spines Neuron 2021-06-26 [PMID: 34233151]

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

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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@biotechne.com Orders: nb-customerservice@bio-techne.com General: novus@novusbio.com

Products Related to NBP2-50037

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

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