

# Product Datasheet

## GSK-3 beta Antibody (3D10) - BSA Free NBP1-47470

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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**NBP1-47470**

GSK-3 beta Antibody (3D10) - BSA Free

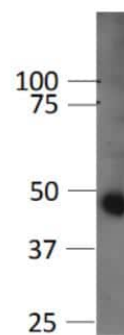
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	3D10
Preservative	0.03% Sodium Azide
Isotype	IgG2a
Purity	Ammonium sulfate precipitation
Buffer	PBS
Target Molecular Weight	46 kDa

Product Description	
Description	Novus Biologicals Mouse GSK-3 beta Antibody (3D10) - BSA Free (NBP1-47470) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow, ICC/IF and Simple Western. Anti-GSK-3 beta Antibody: Cited in 9 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	2932
Gene Symbol	GSK3B
Species	Human, Mouse, Rat, Primate
Immunogen	Purified recombinant fragment of human GSK3 beta expressed in E. coli. [UniProt# P49841]

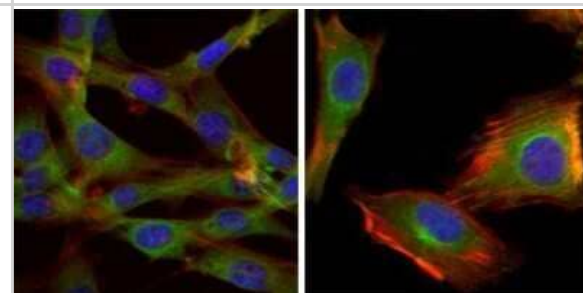
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:500-1:2000, Simple Western 1:50, Flow Cytometry 1:200-1:400, ELISA 1:10000, Immunohistochemistry 1:200-1:1000, Immunocytochemistry/ Immunofluorescence 1:200-1:1000, Immunohistochemistry-Paraffin 1:200-1:1000
Application Notes	<p>This GSK3 beta (3D10) antibody is useful for Western blot, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry on paraffin-embedded sections and ELISA.</p> <p>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point.</p> <p>See <a href="#">Simple Western Antibody Database</a> for Simple Western validation: Tested in Mesenchymal stem cells, Hek293 lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:50, apparent MW was 56 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.</p>

## Images

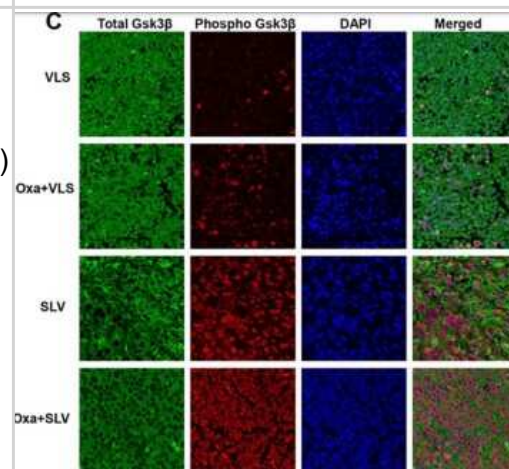
Western Blot: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis of GSK-3 beta in mouse beta cell line (betaTC3) using anti-GSK-3 beta antibody. Image from verified customer review.



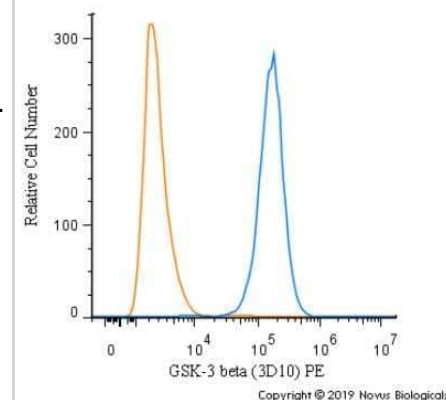
Immunocytochemistry/Immunofluorescence: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis of NIH/3T3 (left) and U251 (right) cells using GSK3 beta mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



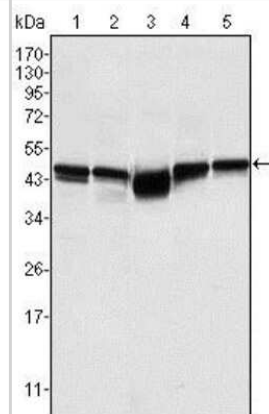
Immunohistochemistry: GSK-3 beta Antibody (3D10) [NBP1-47470] - Fap1-inhibition with SLV peptide increases phosphorylation of Fap1-substrates Fas and GSK-3 beta in a murine xenograft model. SW620 cells injected into flanks of athymic Nude mice & tumor volume was checked biweekly. Mice treated weekly with oxaliplatin (days 0, 7 and 14) & injected daily with Fap1 blocking SLV peptide, VLS control peptide, or treated with SLV or VLS peptide alone (n=12). Tumors were simultaneously harvested when control tumors were >2,000 mm<sup>3</sup>. SLV peptide increases Gsk3-phosphorylation with/without oxaliplatin. IF detection of total versus phospho- GSK-3 beta performed with DAPI staining of nuclei (areas without gland formation were selected). Image collected and cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.25401>), licensed under a CC-BY license.



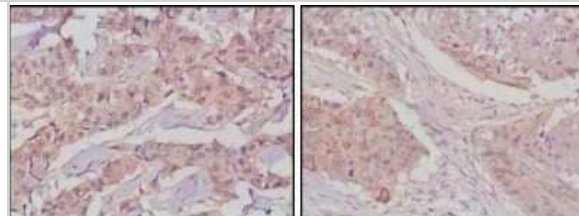
Flow Cytometry: GSK-3 beta Antibody (3D10) [NBP1-47470] - An intracellular stain was performed on HeLa cells with GSK-3 beta (3D10) antibody NBP1-47470PE (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Phycoerythrin.



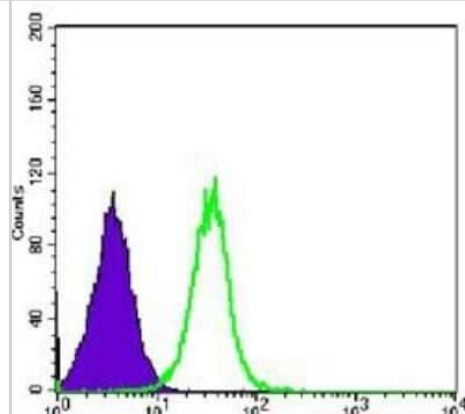
Western Blot: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis using GSK3 beta mouse mAb against A549 (1), K562 (2), PC-12 (3), NIH/3T3 (4), and HEK293 (5) cell lysates.



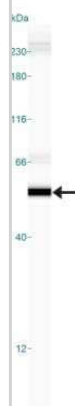
Immunohistochemistry-Paraffin: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis of paraffin-embedded human lung cancer (left) and breast cancer tissues (right) using GSK3 beta mouse mAb with DAB staining.



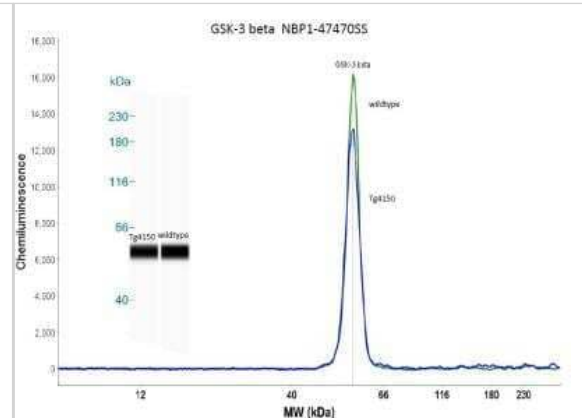
Flow Cytometry: GSK-3 beta Antibody (3D10) [NBP1-47470] - Flow cytometric analysis of Hela cells using GSK3 beta mouse mAb (green) and negative control (purple).



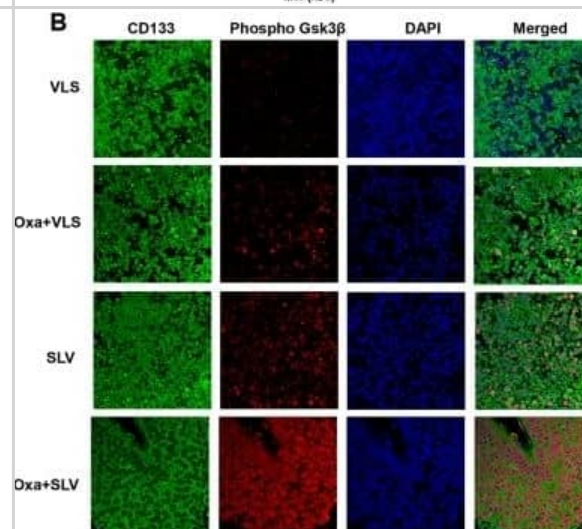
Simple Western: GSK-3 beta Antibody (3D10) [NBP1-47470] - Simple Western lane view shows a specific band for GSK-3 Beta in 0.5 mg/ml of Hek293 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



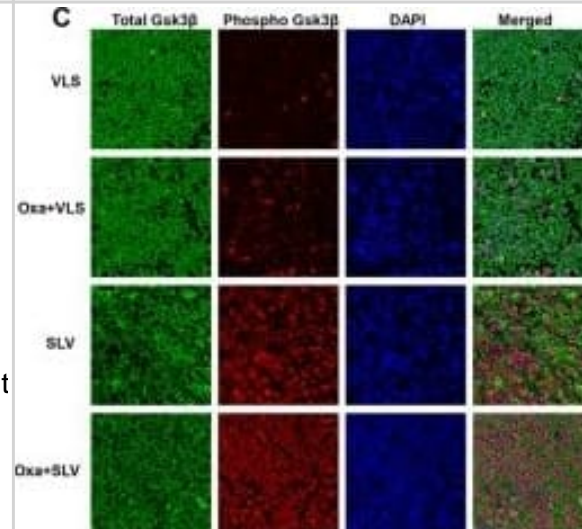
Simple Western: GSK-3 beta Antibody (3D10) [NBP1-47470] - Simple western analysis of mouse brain tissue (striatum) from 4 month old Tg4150 and wildtype mice. Image courtesy of Dr. Brandi Wasek-Patterson at Baylor Research Institute, Institute of Metabolic Disease.



Immunocytochemistry/ Immunofluorescence: GSK-3 beta Antibody (3D10) - BSA Free [NBP1-47470] - Fap1-inhibition with SLV peptide increases Fas & Gsk3 $\beta$  phosphorylation in CD133+ cells in a murine xenograft model. SW620 cells were injected in the flanks of athymic Nude mice & tumor volume was determined biweekly. Mice were treated weekly with oxaliplatin (days 0, 7 & 14) & injected daily with Fap1 blocking SLV peptide or VLS control peptide, or treated with SLV or VLS peptide alone (n=12 per cohort). Tumors were simultaneously harvested from cohorts of mice when control tumors were >2,000 mm<sup>3</sup>. (A) SLV peptide increases Fas phosphorylation in CD133+ xenograft tumors with or without oxaliplatin. Immunofluorescent detection of phospho-Fas or CD133 was performed with DAPI staining of nuclei. (B) SLV peptide increases Gsk3 $\beta$  phosphorylation in CD133+ xenograft tumors with or without oxaliplatin. Immunofluorescent detection of phospho-Gsk3 $\beta$  or CD133 was performed with DAPI staining of nuclei. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29899829>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: GSK-3 beta Antibody (3D10) - BSA Free [NBP1-47470] - Fap1-inhibition with SLV peptide increases phosphorylation of Fap1-substrates Fas & Gsk3 $\beta$  in a murine xenograft model. SW620 cells were injected in the flanks of athymic Nude mice & tumor volume was determined biweekly. Mice were treated weekly with oxaliplatin (days 0, 7 & 14) & injected daily with Fap1 blocking SLV peptide or VLS control peptide, or treated with SLV or VLS peptide alone (n=12 per cohort). Tumors were simultaneously harvested from cohorts of mice when control tumors were >2,000 mm<sup>3</sup>. (A) SLV peptide increases gland formation in xenograft tumors with or without oxaliplatin. Histology was analyzed by hematoxylin/ eosin staining. Fap1 expression was determined by immunofluorescence. Relative fluorescent intensity (RFI) of Fap1 staining is indicated below relevant panels. (B) SLV peptide increases Fas-phosphorylation in xenograft tumors with or without by oxaliplatin. Immunofluorescent detection of total versus phospho-Fas was performed with DAPI staining of nuclei. Areas without gland formation were selected for this study. (C) SLV peptide increases Gsk3 $\beta$ -phosphorylation with or without oxaliplatin. Immunofluorescent detection of total versus phospho- Gsk3 $\beta$  was performed with DAPI staining of nuclei. Areas without gland formation were selected for this study. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29899829>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Aron L, Ngian Z, Qiu C et al. Lithium deficiency and the onset of Alzheimer's disease Nature 2025-08-06 [PMID: 40770094]

Davulur, G, Giusto M, Chandel R et al. Impaired Ribosomal Biogenesis by Non-Canonical Degradation of beta-catenin during Hyperammonemia Mol. Cell. Biol. 2019-06-17 [PMID: 31138664]

Enayati A, Salehi A, Alilou M et al. Potentilla reptans L. postconditioning protects reperfusion injury via the RISK/SAFE pathways in an isolated rat heart BMC Complementary Medicine and Therapies 2021-12-01 [PMID: 34823510]

Lamichhane S, Mo JS, Sharma G et al. MIR133A regulates cell proliferation, migration, and apoptosis by targeting SOX9 in human colorectal cancer cells American journal of cancer research 2022-07-15 [PMID: 35968353] (WB, Mouse)

Cosgun T, Kisacik O Determination of Nurses' Attitudes towards Nutritional Assessment, Level of Knowledge on Nutritional Care, and Perceived Quality of Care Celal Bayar Universitesi Sağlık Bilimleri Enstitüsü Dergisi 2021-06-30

Feng C, Chen Y, Zhang Y et al. PTEN regulates mitochondrial biogenesis via the AKT/GSK-3 beta/PGC-1 alpha pathway in autism Neuroscience 2021-04-22 [PMID: 33895342]

Purvis N, Kumari S, Chandrasekera D et al. Diabetes induces dysregulation of microRNAs associated with survival, proliferation and self-renewal in cardiac progenitor cells Diabetologia 2021-03-02 [PMID: 33655378] (WB, Mouse)

Dey S, Goswami S, EiSa A et al. Cyclic AMP and glycogen synthase kinase 3 form a regulatory loop in spermatozoa J. Cell. Physiol. 2018-03-25 [PMID: 29574946] (WB, Mouse)

Huang W, Bei L, Eklund EA. Inhibition of Fas associated phosphatase 1 (Fap1) facilitates apoptosis of colon cancer stem cells and enhances the effects of oxaliplatin Oncotarget 2018-05-25 [PMID: 29899829] (IHC-P, Human)

Marathe S, Liu S, Brai E et al. Notch signaling in response to excitotoxicity induces neurodegeneration via erroneous cell cycle reentry Cell Death Differ. 2015-03-27 [PMID: 25822340] (ICC/IF, IF/IHC, Mouse)

Xu R, Hu Q, Ma Q et al. The protease Omi regulates mitochondrial biogenesis through the GSK3B/PGC-1a pathway Cell Death Dis 2014-08-14 [PMID: 25118933]





### **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 NBP1-47470**

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NB800-PC8	NIH 3T3 Whole Cell Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

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### **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.

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