

# 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**

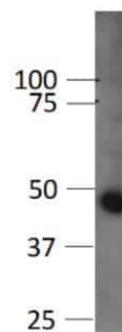
GSK-3 beta Antibody (3D10) - BSA Free

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	
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, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
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>

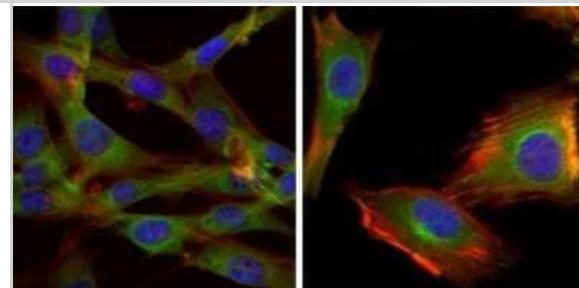


## Images

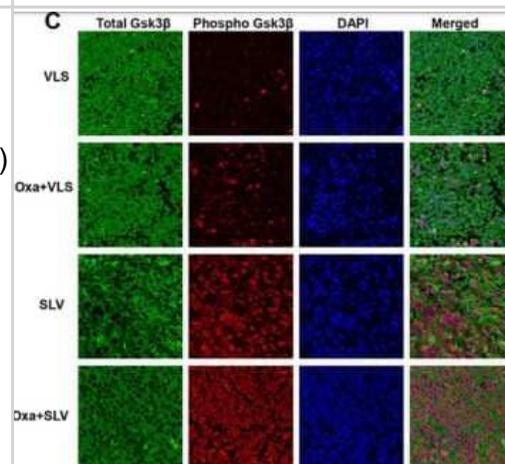
Western Blot: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis of GSK-3 beta in mouse beta cell line (betaTC3) using anti-GSK-3 beta antibody. Image from verified customer review.



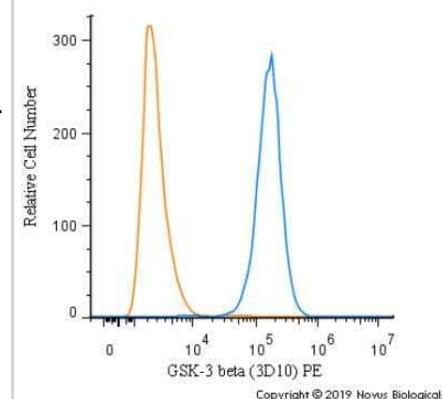
Immunocytochemistry/Immunofluorescence: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis of NIH/3T3 (left) and U251 (right) cells using GSK3 beta mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



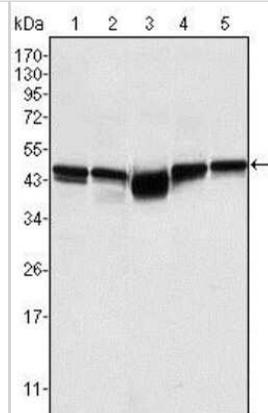
Immunohistochemistry: GSK-3 beta Antibody (3D10) [NBP1-47470] - Fap1-inhibition with SLV peptide increases phosphorylation of Fap1-substrates Fas and GSK-3 beta in a murine xenograft model. SW620 cells injected into flanks of athymic Nude mice & tumor volume was checked biweekly. Mice treated weekly 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.



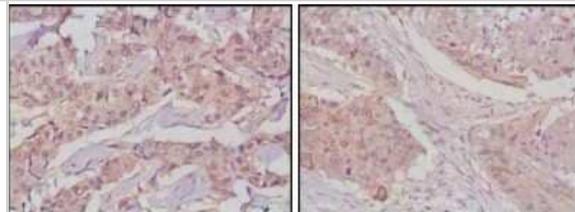
Flow Cytometry: GSK-3 beta Antibody (3D10) [NBP1-47470] - An intracellular stain was performed on HeLa cells with GSK-3 beta (3D10) antibody NBP1-47470PE (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody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



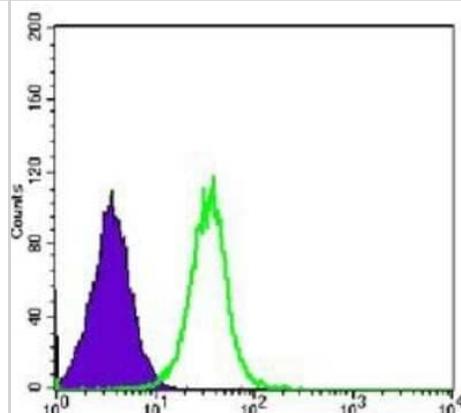
Western Blot: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis using GSK3 beta mouse mAb against A549 (1), K562 (2), PC-12 (3), NIH/3T3 (4), and HEK293 (5) cell lysates.



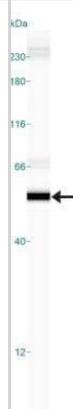
Immunohistochemistry-Paraffin: GSK-3 beta Antibody (3D10) [NBP1-47470] - Analysis of paraffin-embedded human lung cancer (left) and breast cancer tissues (right) using GSK3 beta mouse mAb with DAB staining.



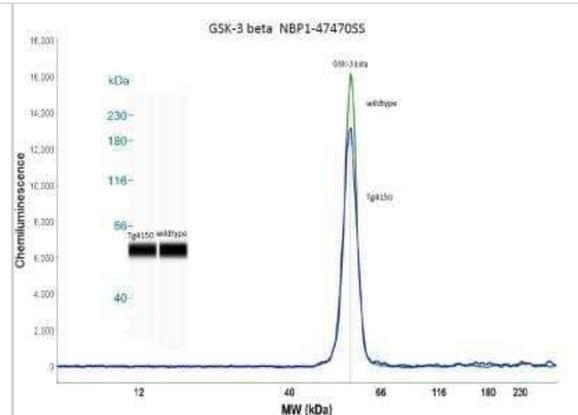
Flow Cytometry: GSK-3 beta Antibody (3D10) [NBP1-47470] - Flow cytometric analysis of Hela cells using GSK3 beta mouse mAb (green) and negative control (purple).



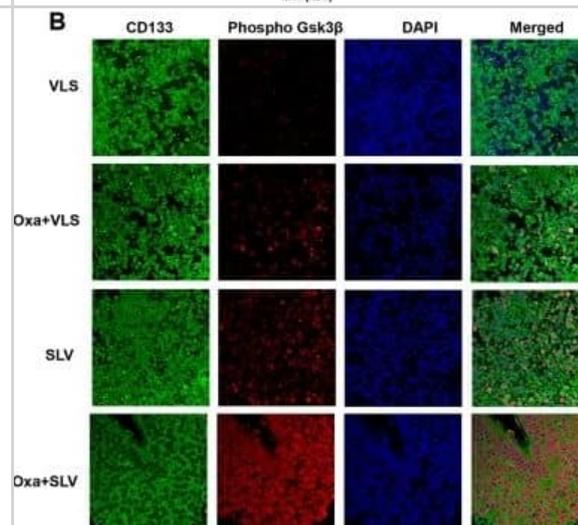
Simple Western: GSK-3 beta Antibody (3D10) [NBP1-47470] - Simple Western lane view shows a specific band for GSK-3 Beta in 0.5 mg/ml of Hek293 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



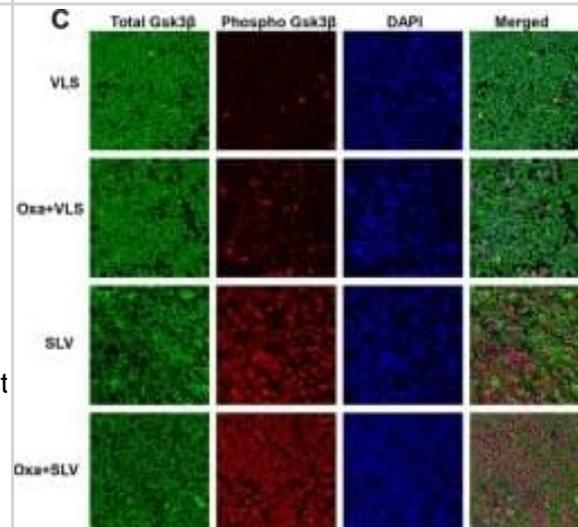
Simple Western: GSK-3 beta Antibody (3D10) [NBP1-47470] - Simple western analysis of mouse brain tissue (striatum) from 4 month old Tg4150 and wildtype mice. Image courtesy of Dr. Brandi Wasek-Patterson at Baylor Research Institute, Institute of Metabolic Disease.



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

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] (Western Blot)

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 Saglik Bilimleri Enstitusu 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

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NB800-PC8	NIH 3T3 Whole Cell Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

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