# 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, Immunofluorescence 1:200-1:1000, Immunohistochemistry-Paraffin 1:200-1:1000
Application Notes	This GSK3 beta (3D10) antibody is useful for Western blot, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry on paraffin- embedded sections and ELISA. In Simple Western only 10 - 15 uL of the recommended dilution is used per data
	See <u>Simple Western Antibody Database</u> 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.

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#### Images

phalloidin.

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





Immunohistochemistry: GSK-3 beta Antibody (3D10) [NBP1-47470] -Fap1-inhibition with SLV peptide increases phosphorylation of Fap1substrates 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 mm3. 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 permeablized 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.











Simple Western: GSK-3 beta Antibody (3D10) [NBP1-47470] - Simple GSK-3 beta NBP1-47470SS 16.203 western analysis of mouse brain tissue (striatum) from 4 month old 16.000 kDa Tg4150 and wildtype mice. Image courtesy of Dr. Brandi Wasek-14,00 230 Patterson at Baylor Research Institute, Institute of Metabolic Disease. 180 12:00 10,000 E.300 6.000 410 2.000 12 230 MW (kDa) в Immunocytochemistry/ Immunofluorescence: GSK-3 beta Antibody **CD133** Phospho Gsk3ß DAPI Merged (3D10) - BSA Free [NBP1-47470] - Fap1-inhibition with SLV peptide VLS increases Fas & Gsk3β phosphorylation in CD133+ cells in a murine xenograft modelSW620 cells were injected in the flanks of athymic Nude mice & tumor volume was determination 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 Oxa+VLS peptide alone (n=12 per cohort). Tumors were simultaneously harvested from cohorts of mice when control tumors were >2,000 mm3. (A) SLV peptide increases Fas phosphorylation in CD133+ xenograft tumors with or without oxaliplatin. Immunofluorescent detection of phospho-Fas or SLV CD133 was performed with DAPI staining of nuclei. (B) SLV peptide increases Gsk3β phosphorylation in CD133+ xenograft tumors with or without oxaliplatin. Immunofluorescent detection of phospho-Gsk3ß or CD133 was performed with DAPI staining of nuclei. Image collected & Oxa+SLV 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. С DAPI Immunocytochemistry/ Immunofluorescence: GSK-3 beta Antibody Total Gsk38 Phospho Gsk38 Merged (3D10) - BSA Free [NBP1-47470] - Fap1-inhibition with SLV peptide VLS increases phosphorylation of Fap1-substrates Fas & Gsk3ß in a murine xenograft modelSW620 cells were injected in the flanks of athymic Nude mice & tumor volume was determination biweekly. Mice were treated weekly with oxaliplatin (days 0, 7 & 14) & injected daily with Fap1 Oxa+VLS 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 mm3. (A) SLV peptide increases gland formation in xenograft tumors with or without SLV 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 Oxa+SLV 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 Gsk3β-phosphorylation with or without oxaliplatin. Immunofluorescent detection of total versus phospho- Gsk3ß 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 betacatenin 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 Saglık 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]





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#### Products Related to NBP1-47470

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

#### Limitations

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