Product Datasheet

GAPDH Antibody
NB300-322

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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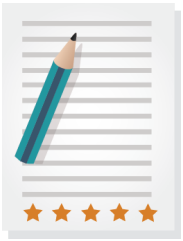
Updated 12/20/2023 v.20.1



NB300-322

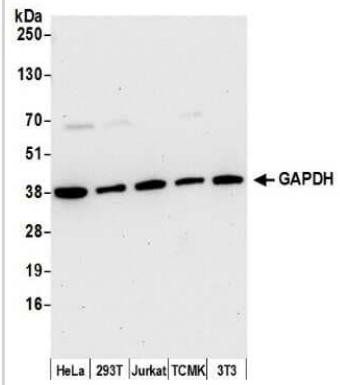
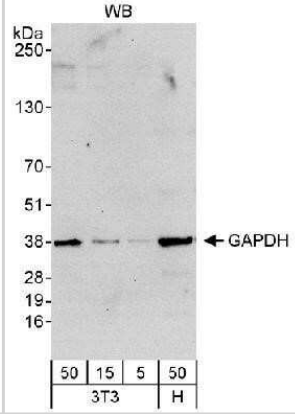
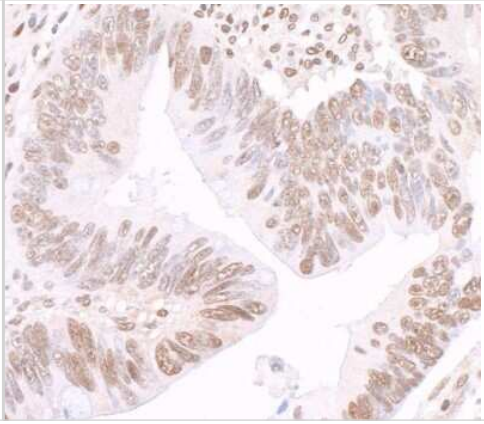
GAPDH Antibody

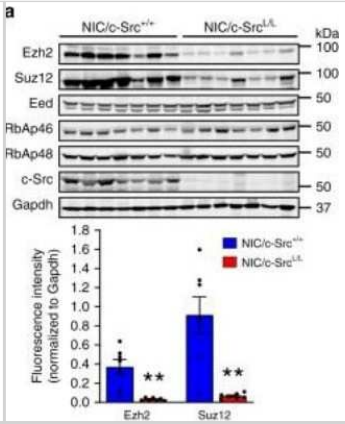
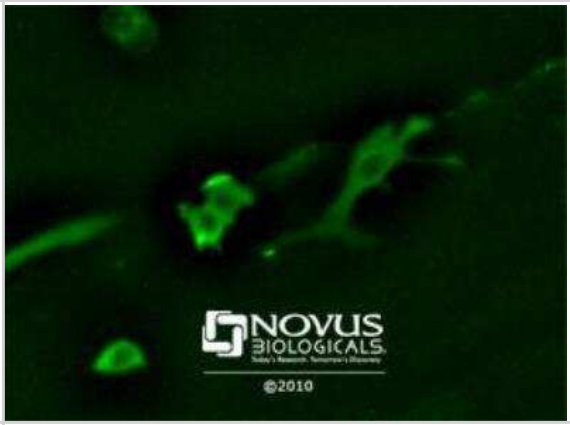
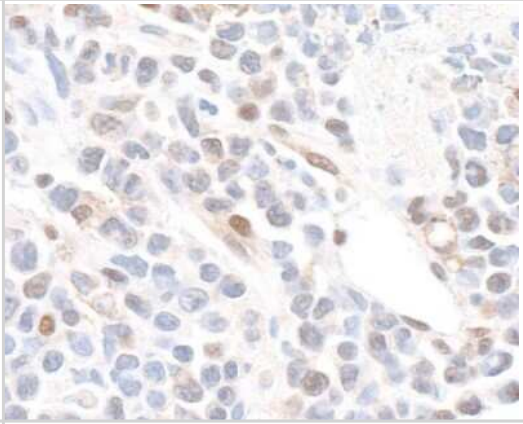
Product Information	
Unit Size	0.1 ml
Concentration	0.2 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	TBS and 0.1% BSA
Target Molecular Weight	36 kDa

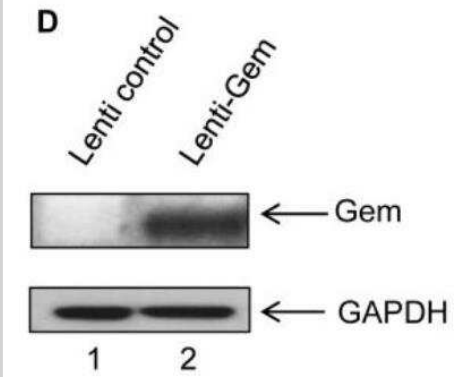
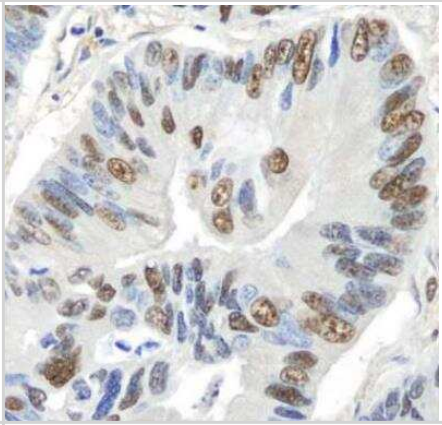
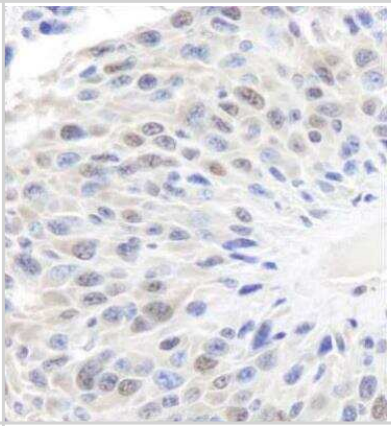
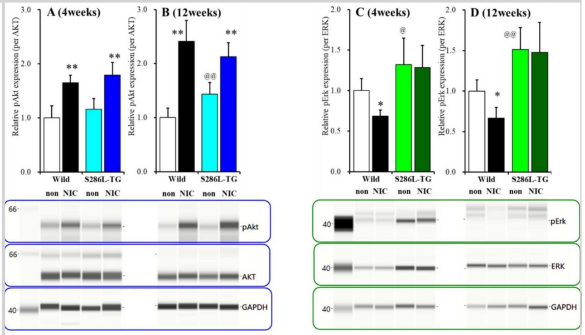
Product Description	
Host	Rabbit
Gene ID	2597
Gene Symbol	GAPDH
Species	Human, Mouse, Rat, Chicken, Primate
Reactivity Notes	Chicken reactivity reported in scientific literature (Youngworth IA et al).
Marker	Cytosolic Marker
Immunogen	This GAPDH antibody was developed against an epitope between residues 150 and 200 of human GAPDH using the numbering given in entry NP_002037.2 (GeneID 2597).

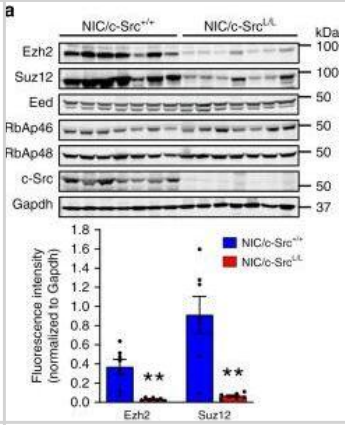
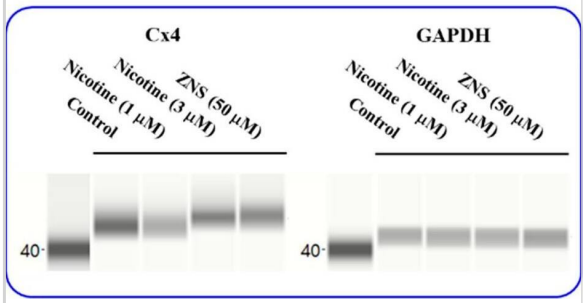
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:2000-1:10000, Simple Western 1:100, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:50-1:200, Immunoprecipitation, Immunohistochemistry-Paraffin 1:100-1:500, Knockdown Validated
Application Notes	This GAPDH antibody is useful for Western Blot, Immunocytochemistry/Immunofluorescence and Immunohistochemistry-Paraffin applications. For IHC, antigen retrieval with citrate buffer pH6.0 is recommended for formalin fixed paraffin embedded tissue sections. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

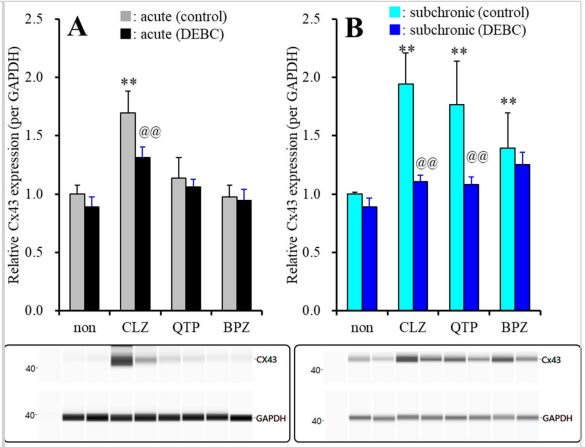
Simple Western: GAPDH Antibody [NB300-322] - Simple Western lane view shows a specific band for GAPDH in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. Note: band observed higher than predicted molecular weight of 36 kDa.	
Western Blot: GAPDH Antibody [NB300-322] - Detection of Human and Mouse GAPDH (theoretical molecular weight: 36 kDa) by Western Blot. Samples: Whole cell lysate (15 ug) from HeLa, 293T, Jurkat, mouse TCMK-1, and mouse NIH3T3 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-GAPDH antibody NB300-322 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.	
Western Blot: GAPDH Antibody [NB300-322] - Detection of Human and Mouse GAPDH (theoretical molecular weight: 36 kDa) by Western Blot. Samples: Whole cell lysate from mouse NIH3T3 (5, 15 and 50 ug) and human HeLa (H; 50 ug) cells. Antibody: Affinity purified rabbit anti-GAPDH antibody used at 0.04 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.	
Immunohistochemistry: GAPDH Antibody [NB300-322] - Detection of human GAPDH by immunohistochemistry. Sample: FFPE section of human colon carcinoma. Antibody: Affinity purified rabbit anti-GAPDH (NB300-322). Detection: DAB	

Western Blot: GAPDH Antibody [NB300-322] - c-Src is required for efficient translation of PRC2 component mRNAs. Immunoblot of PRC2 components in control and c-Src-deficient tumors. Bar chart shows quantification of fluorescent immunoblot data normalized to the loading control (Gapdh). Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/s41467-019-10681-4), licensed under a CC-BY license.	
Immunocytochemistry/Immunofluorescence: GAPDH Antibody [NB300-322] - GAPDH detection in HeLa cells with ICC-IF application using NB300-322, visualized with DyLight Fluor 488.	
Immunohistochemistry: GAPDH Antibody [NB300-322] - Detection of mouse GAPDH by immunohistochemistry. Sample: FFPE section of mouse plasmacytoma. Antibody: Affinity purified rabbit anti-GAPDH (NB300-322). Detection: DAB	
Western Blot: GAPDH Antibody [NB300-322] - Mouse DRG stained at 1:2000 dilution. Image provided by verified customer review.	

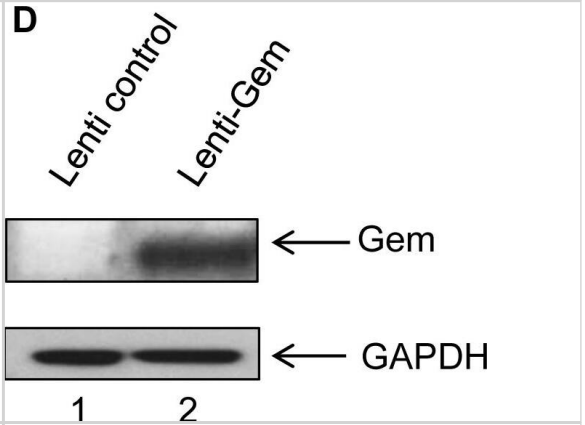
Western Blot: GAPDH Antibody [NB300-322] - Gem expression is sufficient to increase chemokinesis and chemotaxis. Western blot analyses were performed on 70 ug of cellular extracts from MOLT4 cells transduced by Lenti-control or Lenti-GEM viral particles. Membranes were probed with anti-Gem (1:2,000) or anti-GAPDH (1:1,000) antibody. ***: significantly different, p<0.0001, Student's t-test. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.ppat.1003917) licensed under a CC-BY license	
Immunohistochemistry-Paraffin: GAPDH Antibody [NB300-322] - IHC-P detection of GAPDH in formalin fixed paraffin embedded section of human lung carcinoma using NB300-322 at a dilution of 1:200.	
Immunohistochemistry-Paraffin: GAPDH Antibody [NB300-322] - IHC-P detection of GAPDH in formalin fixed paraffin embedded section of mouse squamous cell carcinoma using NB300-322 at a dilution of 1:200.	
Effects of subchronic nicotine administration on the expression of phosphorylated protein kinase B (pAkt) and phosphorylated extracellular signal-regulated kinase (pErk) in the plasma membrane fraction of OFC. Effects of the systemic subchronic administration of nicotine (50 mg/kg/day for seven days) on pAkt and pErk expression in the OFC plasma membrane fraction before four week of age (A,C) and after 12 week of age (B,D), ADSHE onset of the wild-type and S286L-TG and pseudo-gel images, using capillary immunoblotting. Ordinate: mean +/- SD (n = 6) of the relative protein level of pErk and pAkt. * p < 0.05, ** p < 0.01 vs. wild-type, and @ p < 0.05, @@ p < 0.01 vs. nicotine-free (non) by two-way ANOVA with Tukey's multiple comparison. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33143372), licensed under a CC-BY licence.	

Concentration-dependent effects of the subchronic administration of LCM (30 or 100 uM), CBZ (30 or 100 uM), and ZNS (30, 100, or 300 uM) on the Cx43 expression in the plasma membrane fraction of primary cultured astrocytes (A) and pseudo-gel images using the Simple Western results with anti-Cx43 (B) and anti-GAPDH (C) antibodies for blotting of the plasma membrane fractions. In (A), ordinate: mean +/- SD (n = 6) of the relative protein level of Cx43. * p < 0.05 relative to the control by one-way ANOVA with Tukey's multiple comparison. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32516974), licensed under a CC-BY licence.	
c-Src is required for efficient translation of PRC2 component mRNAs. A) Immunoblot of PRC2 components in control and c-Src-deficient tumors. Bar chart shows quantification of fluorescent immunoblot data normalized to the loading control (Gapdh). Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31263101), licensed under a CC-BY licence.	
Silencing NUSAP1 inhibits cell proliferation and causes apoptosis in GBM cells. a Western blot analyses of NUSAP1 in cells with NUSAP1 knockdown. b The morphology and cell number of GBM cells after knocking down NUSAP1. c Viability of NUSAP1-knockdown GBM cells. d BrdU-positive GBM cells after knocking down NUSAP1. e Flow cytometry analyses of apoptosis in GBM cells with NUSAP1 knockdown. f The expression of the apoptotic proteins bcl2 and cleaved caspase-3 in cells with NUSAP1 knockdown. g Caspase-3/7 activity of GBM cells with NUSAP1 knockdown. All data are expressed as the mean ± SD, and significant differences were determined by Student's t test. *P < 0.05, **P < 0.01, ***P < 0.001. P < 0.05 was considered statistically significant Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/32317623), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

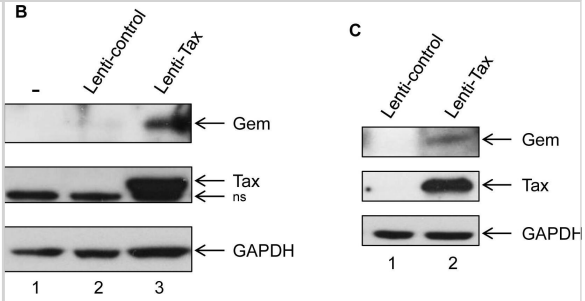
Effects of anti-S100a9 Ab on the frequency of neutrophils, macrophages, and dendritic cells (DCs) in the colon of the dextran sulfate sodium (DSS) mouse model. (A) Colon lamina propria cells were isolated from normal control and IgG Ab or anti-S100a9 Ab-treated DSS mice at day 6 post-DSS colitis induction. Frequencies of neutrophils, macrophages, and DCs in the colon were determined by flow cytometry. Cells were gated on CD45+CD3−CD4−CD11b+Ly6G+, CD45+CD3−CD4−CD11b +F4/80+, and CD45+CD3−CD4−CD11b+CD11c+ populations respectively. Representative flow cytometric figures were shown. The percentage of cells was presented as the mean ± SEM of four to six individual mice per group. *p < 0.05 in a one-way analysis of variance followed by Bonferroni correction. Data were representative of three independent experiments. (B) Immunohistochemical staining of myeloperoxidase (MPO), CD68, and CD11c proteins in the normal control and IgG Ab or anti-S100a9 Ab-treated colitis mice at day 6 (left panels: original magnification 40×, scale bar: 200 μm; right panels: original magnification 200×, scale bar: 50 μm). Staining scores were counted. One-way analysis of variance followed by Bonferroni correction. Results were representative of the three experiments performed. Error bars represent SD. (C) Expression of S100a9, Tnfα, Il1β, Il6, Il17a, Ifnγ, Il12a, Il23a, Il4, and Il10 mRNA, as assessed by quantitative real-time PCR in normal control and IgG Ab, or anti-S100a9 Ab-treated colitis tissues. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/29326691), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



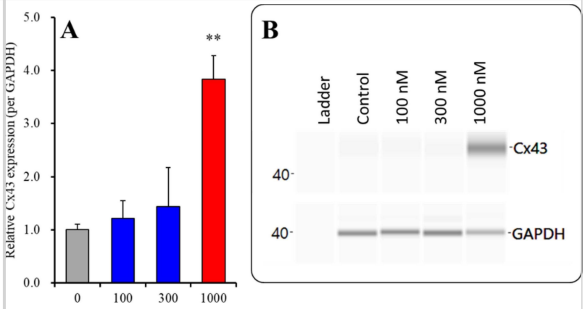
[18F]PBR06 selectivity in primary human grade IV glioblastoma xenotransplant.(A) Dynamic PET image (axial) pre-infusion of cold analog, with [18F]PBR06 uptake primarily confined to the tumor. (B) Dynamic PET image (axial) post-infusion, showing nearly total displacement of [18F]PBR06. (C) Time-activity curves of injected [18F]PBR06 in tumor (green) and contralateral brain (blue). (D) Correlative TSPO immunohistochemistry, Tumor + White Matter Tract (40X). Image collected and cropped by CiteAb from the following open publication (https://dx.plos.org/10.1371/journal.pone.0141659), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Analysis of the expression of the transgene in C-IKKα and N-IKKα tumors by biochemical and immunohistochemical approachesA. Western blot showing the increased expression of IKKα in transgenic mice. B-I. Immunohistochemistry showing the expression of the transgenic protein in N-IKKα and C-IKKa tumors. Staining with NB100-56704 antibody is shown. (B, C) Representative images showing the expression of transgenic IKKα in tumors and adjacent skin of N-IKKα/TgAC mice (B), and C-IKKα/TgAC animals (C). (D, E) Detail showing the nuclear (D) or cytoplasmic (E) localization of the transgenic IKKα in tumors. (F, G) Similar levels of expression of the transgenic IKKα in different N-IKKα tumors. By contrast variable levels of expression of the transgene are observed between different C-IKKα tumors (H, I). t: tumor; s: non-tumoral skin. Scale bar: (B, C) 100μm; (D, E) 80 μm; (F-I) 200 μm. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/27121058), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Protein expressions of intrarenal RAS components in two groups of mice. (A) Immunohistochemical analysis of intrarenal RAS expression position in the two groups of mice. AGT immunoreactivity in the proximal tubular cells, Ang II immunoreactivity in both glomerular and tubular cells, renin immunoreactivity in juxtaglomerular apparatus cells, ACE immunoreactivity in brush border membranes of proximal tubules as well as AT1 and AT2 immunoreactivity in the proximal tubules were increased in the HF group when compared to the control group. (B) Western blot analysis for protein expressions of intrarenal RAS components in the two groups of mice. (C) The histogram represents mean ± SD of the densitometric scans for the protein bands of angiotensinogen (AGT), angiotensin II (Ang II), renin, angiotensin converting enzyme (ACE), angiotensin II type 1 receptor (AT1), angiotensin II type 2 receptor (AT2) from five experiments, normalized by β-actin. * $P < 0.05$ vs. control. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/23570453), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Mashimo K, Ohno Y. Cultured Neonatal Rat Cardiomyocytes Continue Beating Through Upregulation of CTGF Gene Expression Journal of Nippon Medical School 2020-12-14 [PMID: 33311008]

Fukuyama K, Okada M. Age-Dependent and Sleep/Seizure-Induced Pathomechanisms of Autosomal Dominant Sleep-Related Hypermotor Epilepsy International Journal of Molecular Sciences 2020-10-30 [PMID: 33143372] (WB)

Borovská I, Vo?echovský I, Královi?ová J Alu RNA fold links splicing with signal recognition particle proteins Nucleic acids research 2023-06-13 [PMID: 37309897] (WB, Human)

Xie X, Fan C, Luo B et al. APR-246 enhances colorectal cancer sensitivity to radiotherapy Molecular cancer therapeutics 2023-05-22 [PMID: 37216282] (WB, Human)

Fukuyama K, Motomura E, Okada M Opposing effects of clozapine and brexpiprazole on beta-aminoisobutyric acid: Pathophysiology of antipsychotics-induced weight gain Schizophrenia (Heidelberg, Germany) 2023-02-08 [PMID: 36750570] (Simple Western, Rat)

Fukuyama, K & Okada, M. Effects of Atypical Antipsychotics, Clozapine, Quetiapine and Brexpiprazole on Astroglial Transmission Associated with Connexin43. Int J Mol Sci [PMID: 34070699] (Simple Western, Rat)

Details:
0.111111111

Xue L, Schnacke P, Frei MS et al. Probing coenzyme A homeostasis with semisynthetic biosensors Nature chemical biology 2022-10-31 [PMID: 36316571] (WB)

Pengelly RJ, Bakhtiar D, Borovska I et al. Exonic splicing code and protein binding sites for calcium Nucleic acids research 2022-04-26 [PMID: 35474482] (WB)

Fukuyama K, Okada M Brivaracetam and Levetiracetam Suppress Astroglial L-Glutamate Release through Hemichannel via Inhibition of Synaptic Vesicle Protein International Journal of Molecular Sciences 2022-04-19 [PMID: 35562864] (WB, Simple Western, Rat)

Fukuyama, K;Okada, M; High frequency oscillations play important roles in development of epileptogenesis/ictogenesis via activation of astroglial signallings Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie [PMID: 35325849] (WB, Rat)

Wang J, Wang W, Huang X et al. m6A-dependent upregulation of TRAF6 by METTL3 is associated with metastatic osteosarcoma Journal of Bone Oncology 2022-02-01 [PMID: 35145841] (WB)

Fukuyama, K, Ueda, Y Et al. Effects of Carbamazepine, Lacosamide and Zonisamide on Gliotransmitter Release Associated with Activated Astroglial Hemichannels. Pharmaceuticals (Basel) 2020-06-05 [PMID: 32516974] (WB, Mouse)

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Products Related to NB300-322

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

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