Product Datasheet

GAPDH Antibody (6C5cc)
NB600-502-0.2mg

Unit Size: 0.2 mg

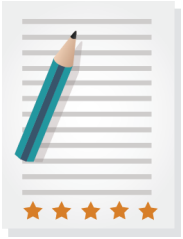
Store at 4C. Do not freeze.

www.novusbio.com technical@novusbio.com

Reviews: 3 Publications: 81

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB600-502

Updated 12/20/2023 v.20.1



NB600-502-0.2mg

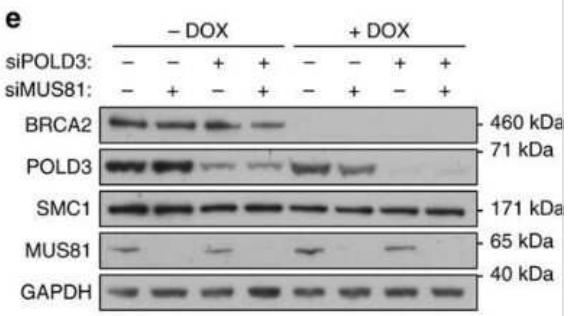
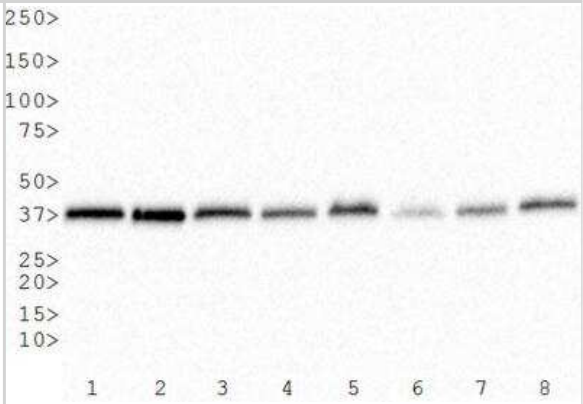
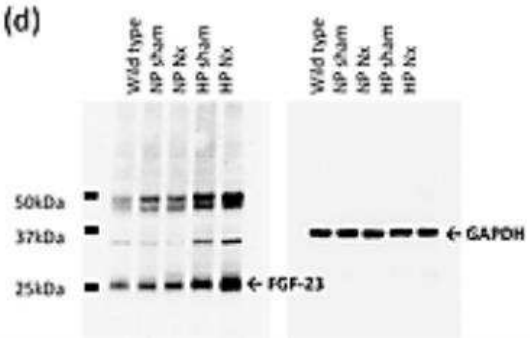
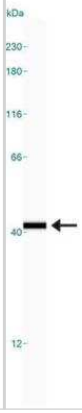
GAPDH Antibody (6C5cc)

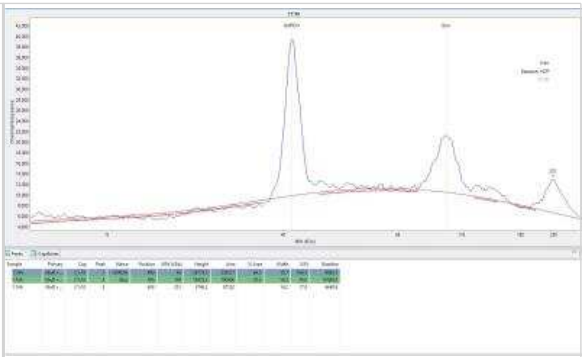
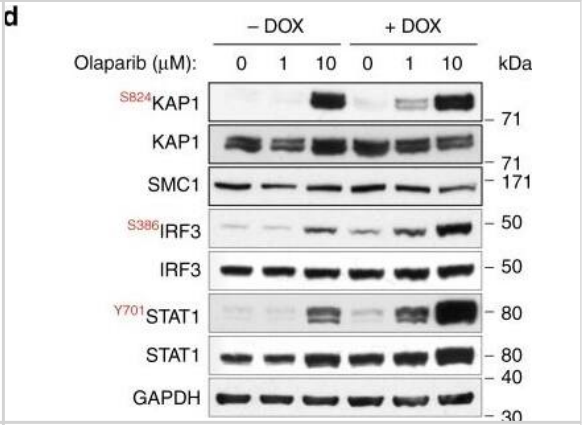
Product Information	
Unit Size	0.2 mg
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	6C5cc
Preservative	0.09% Sodium Azide
Isotype	IgG1
Purity	Protein A purified
Buffer	PBS (pH 7.4)
Target Molecular Weight	36 kDa

Product Description	
Host	Mouse
Gene ID	2597
Gene Symbol	GAPDH
Species	Human, Mouse, Rat, Porcine, Amphibian, Canine, Chinese Hamster, Feline, Fish, Rabbit, Bovine (Negative), Goat (Negative)
Reactivity Notes	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information. Chinese Hamster reactivity reported in scientific literature (PMID: 26115091).
Immunogen	Hybridoma clone has been derived from hybridization of Sp2/0 myeloma cells with spleen cells of Balb/c mice immunized with Rabbit GAPDH.

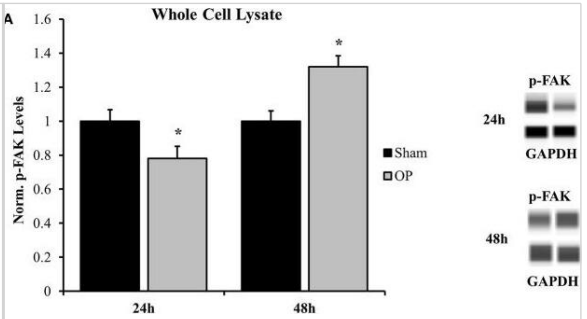
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Immunoassay, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 0.5-1 ug/ml, Simple Western 1:100, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:10-1:2000, Immunoprecipitation, Immunohistochemistry-Paraffin, Immunoassay
Application Notes	Use in IHC-P reported in scientific literature (PMID:34496231). Since GAPDH is expressed in all cells it is for example becoming the marker of choice for a loading control in Western Blotting. Simple Western reported by an internal validation. Separated by Size-Jess/Wes, Sally Sue/Peggy Sue, antibody dilution of 1:50. Apparent MW in kDa on Simple Western was 40kDa; matrix was 12-230 kDa.

Images

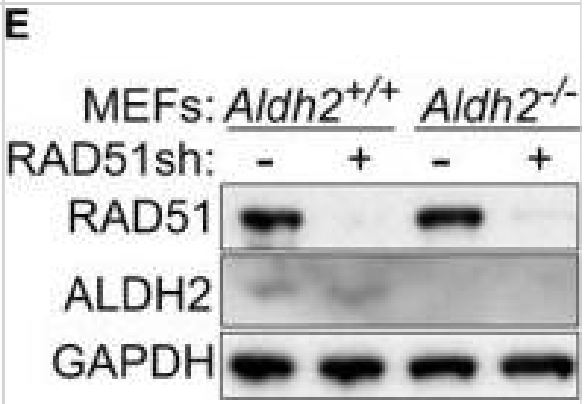
Western Blot: GAPDH Antibody (6C5) [NB600-502] - MUS81 promotes DNA synthesis during mitosis in BRCA2-deficient cells. Cell extracts were immunoblotted as indicated. SMC1 and GAPDH were used as loading controls. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/doifinder/10.1038/ncomms15983), licensed under a CC-BY license.	
Western Blot: GAPDH Antibody (6C5) [NB600-502] - Western blot analysis of GAPDH expression in 1) HeLa, 2) NTERA-2, 3) A-431, 4) HepG2, 5) MCF-7, 6) NIH 3T3, 7) PC-12 and 8) COS-7 whole cell lysates. Theoretical molecular weight: 36 kDa.	
Western Blot: GAPDH Antibody (6C5) [NB600-502] - Western blot of FGF23 in the kidney. GAPDH antibody (6C5) served as an internal control. Each value represents the mean +/- SEM. Citation: Sugiura H, Matsushita A, Futaya M, Teraoka A, Akiyama K-i, Usui N, et al. (2018) Fibroblast growth factor 23 is upregulated in the kidney in a chronic kidney disease rat model. PLoS ONE 13(3): e0191706. https://doi.org/10.1371/journal.pone.0191706	
Simple Western: GAPDH Antibody (6C5) [NB600-502] - Simple Western lane view shows a specific band for GAPDH in 0.5 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 36 kDa molecular weight.	

Simple Western: GAPDH Antibody (6C5) [NB600-502] - Anaylsis in rat brain and spinal cord. This image includes the GAPDH at the predicted kDa as well as a glucocorticoid receptor antibody (peak 102). Verified customer review.	
Representative picture of western blot in histopathologically unchanged tissue (N) and primary cancerous tissue (C) from patients with CRC. Immunodetection of bands was performed with Rp anti- PHD1, - PHD2, - PHD3 and - FIH Ab, followed by incubation with goat anti-rabbit HRP-conjugated Ab. The membrane was stripped and incubated with Rp anti-GAPDH Ab, followed by incubation with goat anti-rabbit HRP-conjugated Ab. Bands were revealed using SuperSignal West Femto Chemiluminescent Substrate, Thermo Fisher Scientific (Rockford, IL) and Biospectrum® Imaging System 500, UVP Ltd. (Upland, CA). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/24195777), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunostaining of HN30 and MCF-12a cells for TRAF2 3 days post-transfectionMCF-12a NT (DAPI): non-treated MCF-12a DAPI stained, MCF-12a NT (TRAF2-FITC): non-treated MCF-12a FITC stained for TRAF2, MCF-12a pNSP 5a3a (DAPI): MCF-12a transfected with pcDNA 3.0 NSP 5a3a DAPI stained, MCF-12a pNSP 5a3a (TRAF2-FITC): MCF-12a transfected with pcDNA 3.0 NSP 5a3a FITC stained for Traf-2, HN30 NT (DAPI): non-treated HN30 DAPI stained, HN30 NT (TRAF2-FITC): non-treated HN30 FITC stained for TRAF2, HN30 pNSP 5a3a (DAPI): HN30 transfected with pcDNA 3.0 NSP 5a3a DAPI stained, HN30 pNSP 5a3a (TRAF2-FITC): HN30 transfected with pcDNA 3.0 NSP 5a3a FITC stained for TRAF2. White arrows indicate apoptotic bodies. Image collected and cropped by CiteAb from the following open publication (https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.306), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Baclofen reversed the changes of protein markers characteristic for autophagy in hippocampal CA1 area under chronic cerebral hypoperfusion.(a–c) Five weeks after induction of hypoperfusion, p-mTOR was significantly decreased, and LC3-II, Beclin 1, atg5 and atg7 were significantly increased, and baclofen could reverse the changes of these proteins expression. Treatment with baclofen at 12.5 mg/kg and 25 mg/kg in sham-operated rats did not change the expression of LC3-II, mTOR, p-mTOR, Beclin 1, atg5 and atg7 compared with sham-operated rats (n = 4 in each group). Blots shown have been cropped to fit space requirements and run under the same experimental conditions. *P < 0.05 and **P < 0.01 vs sham-operated rats; ##P < 0.01 vs 2VO rats. Image collected and cropped by CiteAb from the following open publication (https://www.nature.com/articles/srep14474), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

The production of DSBs depends on Top1 degradation in CPT-treated quiescent cells. (A–C) Serum-starved WI38 hTERT cells were co-transfected with siRNAs against cullin 3 and cullin 4B or against a control sequence and then treated with DMSO (−CPT) or 25 μM CPT (+CPT) for 1 h. (A and B) Western blotting of the indicated proteins. αTubulin: loading control. (C) Number of γH2AX foci per nucleus from one representative experiment (246–348 nuclei were analyzed for each treatment) out of three. ***P < 0.001. (D and E) Serum-starved WI38 hTERT cells were treated with DMSO or MG132 (50 μM) for 1 h before exposure to 0.8 Gy IR. One hour post-irradiation, cells were co-stained for γH2AX (green) and 53BP1 (red). (D) Representative pictures. (E) Number of γH2AX foci per nucleus from one representative experiment (162–180 nuclei were analyzed for each treatment) out of three. Ns: not significant. (F and G) U2OS EV28 cells were treated with DMSO or MG132 (10 μM) for 1 h before the addition of ethanol (untreated) or 300 nM 4-hydroxitamoxifen (4OHT) for 4 h to express AsiSI in the nucleus (42). (F) Representative pictures of cells co-stained for γH2AX (green) and 53BP1 (red). (G) ChIP analysis using an anti-γH2AX antibody (black) or a non-immune antibody (IgG, gray). Enrichment was assessed by QPCR amplification using primers proximal to two AsiSI sites located inside two genes (Gene I: SFRS6, Gene II: CCD47) and primers distal to an AsiSI site (Control). Enrichment was normalized to the maximum recovery for each experiment (means ± SEM, n = 3). Ns: not significant; *P < 0.05. In the microscopic images, nuclear contours, identified by DAPI staining (not shown), are indicated by dashed lines. Bars: 10 μm. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/26578593), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



GFAP expression and synthesis in the ON and ONH in a murine glaucoma model. (A) GFAP immunoreactivity in the glial lamina of 1-month (green, upper panel) and 2 months (green, middle and lower panel) old βB1-CTGF1 mice compared to WT controls. Immunoreactivity of GFAP was not altered in 1-month old TG and WT animals (green, upper panel). 2 month old βB1-CTGF1 mice showed an increased GFAP immunoreactivity compared to WT control (green, middle panel). Lower panel shows a magnified detail of the middle panel. Nuclei are stained with Dapi (blue). (B) Schmatic illustration of the optic nerve. A depicts the region in the glial lamina where cross sections were obtained. ONH (unmyelinated part) and ON (myelinated part) were used for molecular analysis. (C) Quantification of immunohistochemical staining of GFAP in the glial lamina is not altered in 1 month old TG and WT animals (WT: n = 5; TG: n = 4). GFAP immunoreactivity is increased in 2 month old TG animals compared to WT littermates (WT: n = 10, TG: n = 13; *p = 0.039; two-tailed t-test compared to theoretical mean of 1 (normalized control)). Mean value of WT animals (control) was set at 1. (D) RT-PCR analyses revealed no alteration in the Gfap mRNA expression in the ON of 1-month (WT: n = 7; TG: n = 5) and 2 month old βB1-CTGF1 mice (WT: n = 15; TG: n = 16) compared to WT controls. In the ONH the Gfap mRNA expression is increased in the 2 month old TG compared to WT animals (WT: n = 6, TG: n = 5; *p = 0.04). The mRNA expression of Gfap is not altered in 1 month old animals (WT: n = 6, TG: n = 5). Mean value of WT animals (control) was set at 1. RPL32 was used to normalize mRNA expression. Data represented as mean ± SEM. PRL, Prelaminar region; PSL, Postlaminar region; ON, optic nerve; ONH, optic nerve head. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35493079), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Zakharova IO, Bayunova LV, Zorina II et al. Insulin and ?-Tocopherol Enhance the Protective Effect of Each Other on Brain Cortical Neurons under Oxidative Stress Conditions and in Rat Two-Vessel Forebrain Ischemia/Reperfusion Injury International Journal of Molecular Sciences 2021-10-29 [PMID: 34769198] (WB)

van Senten JR, M□ller TC, Moo EV et al. Use of CRISPR/Cas9-edited HEK293□cells reveals that both conventional and novel protein kinase C isozymes are involved in mGlu(5a) receptor internalization Journal of Biological Chemistry 2022-10-01 [PMID: 36087841] (B/N)

Youn EK, Cho HM, Jung JK et al. Pathologic HDAC1/c-Myc signaling axis is responsible for angiotensinogen transcription and hypertension induced by high-fat diet Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie 2023-05-25 [PMID: 37244179] (WB, Mouse)

Torices S, Teglas T, Naranjo O et al. Occludin regulates HIV-1 infection by modulation of the interferon stimulated OAS gene family Research square 2023-01-30 [PMID: 36778388] (WB, Human)

Details:
Dilution used in WB 1:20,000

Zhao YM, Sun RS, Duan F et al. Intravitreal slow-release dexamethasone alleviates traumatic proliferative vitreoretinopathy by inhibiting persistent inflammation and M□ller cell gliosis in rabbits International journal of ophthalmology 2023-01-18 [PMID: 36659954] (WB, Rabbit)

Details:
Dilution used in WB 1:1000

Cao R, Chen P, Wang H et al. Intrafusal-fiber LRP4 for muscle spindle formation and maintenance in adult and aged animals Nature communications 2023-02-10 [PMID: 36765071] (WB, Mouse)

Osborne OM, Kowalczyk JM, Pierre Louis KD Brain endothelium-derived extracellular vesicles containing amyloid-beta induce mitochondrial alterations in neural progenitor cells Extracellular Vesicles and Circulating Nucleic Acids 2022-12-01 [PMID: 36649440] (WB, Human)

Langendonk M, Smit N, Plattel W et al. Navitoclax Most Promising BH3 Mimetic for Combination Therapy in Hodgkin Lymphoma International Journal of Molecular Sciences 2022-11-09 [PMID: 36430230] (WB, Human)

Zonderland G, Vanzo R, Amitash S et al. The TRESLIN-MTBP complex couples completion of DNA replication with S/G2 transition Molecular cell 2022-08-23 [PMID: 36049481] (WB, Human)

Groelly FJ, Dagg RA, Petropoulos M et al. Mitotic DNA synthesis is caused by transcription-replication conflicts in BRCA2-deficient cells Molecular cell 2022-08-17 [PMID: 36002001] (WB, Human)

Siciliano T, Sommer U, Beier A et al. The Androgen Hormone-Induced Increase in Androgen Receptor Protein Expression Is Caused by the Autoinduction of the Androgen Receptor Translational Activity Curr Issues Mol Biol 2022-06-20 [PMID: 35723327]

Pedersen MF, Moller TC, Seiersen SD, Mathiesen JM Dissecting the roles of GRK2 and GRK3 in mu-opioid receptor internalization and Beta-arrestin2 recruitment using CRISPR/Cas9-edited HEK293 cells Sci Rep 2020-10-16 [PMID: 33060647]

More publications at http://www.novusbio.com/NB600-502

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 NB600-502-0.2mg

NBP1-42569	HepG2 Whole Cell Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB600-502

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications