

# Product Datasheet

## GAPDH Antibody NB300-327

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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Updated 4/21/2024 v.20.1

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**NB300-327**

## GAPDH Antibody

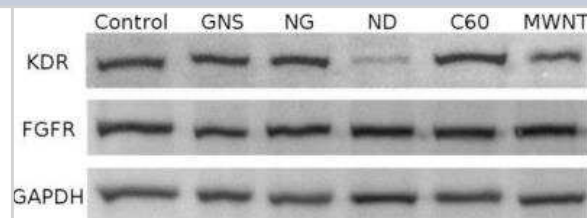
Product Information	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	This product is unpurified. The exact concentration of antibody is not quantifiable.
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	5mM Sodium Azide
<b>Purity</b>	Unpurified
<b>Buffer</b>	Supplied as serum
<b>Target Molecular Weight</b>	36 kDa

Product Description	
<b>Host</b>	Rabbit
<b>Gene Symbol</b>	GAPDH
<b>Species</b>	Human, Mouse, Rat, Porcine, Bacteria, Bovine, Chicken, Equine, Fungi, Invertebrate, Yeast
<b>Reactivity Notes</b>	Bacteria reactivity reported in scientific literature (PMID: 31413153). Fungi reactivity reported in scientific literature (PMID:31413153).
<b>Marker</b>	Cytosolic Marker
<b>Immunogen</b>	This GAPDH antibody was developed against full length recombinant human GAPDH

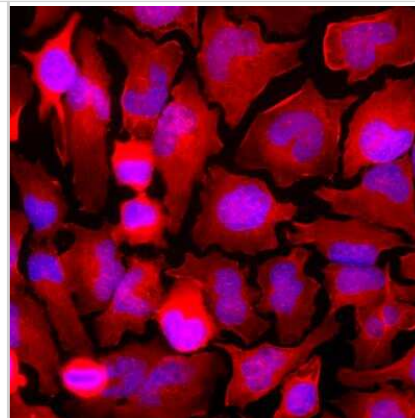
Product Application Details	
<b>Applications</b>	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
<b>Recommended Dilutions</b>	Western Blot 1:5000, Simple Western 1:500, Immunohistochemistry 1:10000, Immunocytochemistry/ Immunofluorescence 1:500-1:1000
<b>Application Notes</b>	This GAPDH antibody is useful Immunocytochemistry/Immunofluorescence and Western blot. In Western blot a band is observed at approx. 36kDa, and on cells in tissue culture the antibody stains in a punctate cytoplasmic fashion.  In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.

**Images**

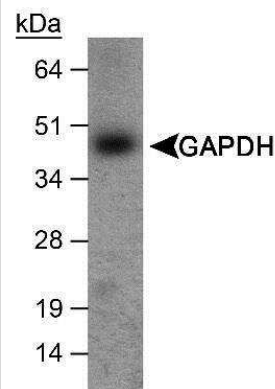
Western Blot: GAPDH Antibody [NB300-327] - Representative immunoblot of KDR and FGFR CAM protein expression levels examined by Western blotting. GNS, graphene nanosheet; NG, graphite nanoparticle; ND, diamond nanoparticle; C60, fullerene C60; MWNT, multi-wall nanotube; KDR, vascular endothelial growth factor receptor; FGFR, fibroblast growth factor receptor; GAPDH, glyceraldehyde-3-phosphate dehydrogenase. Image collected and cropped by CiteAb from the following publication (<https://nanoscalereslett.springeropen.com/articles/10.1186/1556-276X-8-195>), licensed under a CC-BY license.



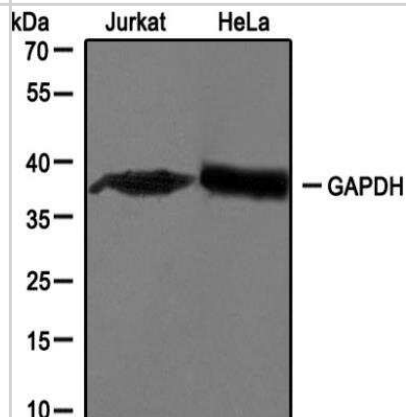
Immunocytochemistry/Immunofluorescence: GAPDH Antibody [NB300-327] - Analysis of HeLa cells stained with rabbit pAb to GAPDH, dilution 1:2000 in red. Blue is Hoescht staining of nuclear DNA. The GAPDH antibody produces diffuse cytoplasmic staining of cells.



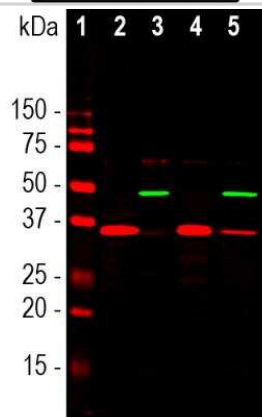
Western Blot: GAPDH Antibody [NB300-327] - Theoretical molecular weight: 36 kDa. Detection of GAPDH in mouse liver.



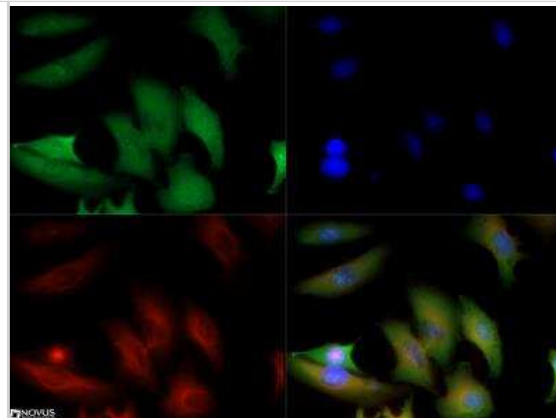
Western Blot: GAPDH Antibody [NB300-327] - Western blot analysis of extracts from Jurkat and HeLa cells using NB300-327 at 1:1000. Theoretical molecular weight: 36 kDa.



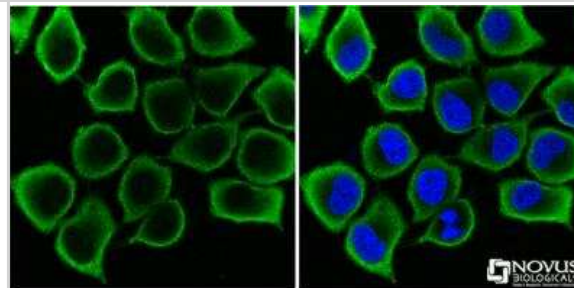
Western Blot: GAPDH Antibody [NB300-327] - Analysis of different cell cytosolic or nuclear enriched fractions, GAPDH antibody, dilution 1:20,000 (Red): [1] protein standard, [2] NIH-3T3 cytosolic, [3] NIH-3T3 nuclear, [4] HeLa cytosolic, and [5] HeLa nuclear fractions. Strong band at 37kDa corresponds to GAPDH protein, mainly detected in the cytosolic fractions. The same blot was simultaneously probed with mouse mAb to the nuclear RNA binding protein SF3B4, dilution 1:1,000 (Green). In contrast to GAPDH, SF3B4 is exclusively expressed in the nuclear fraction.



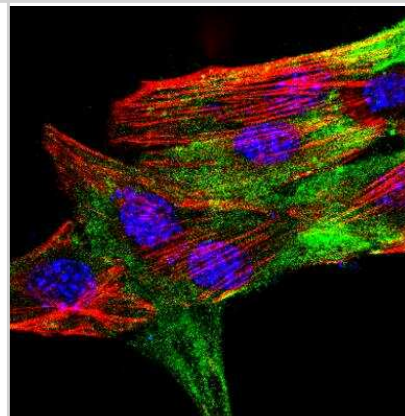
Immunocytochemistry/Immunofluorescence: GAPDH Antibody [NB300-327] - The GAPDH antibody was tested in HeLa cells at a 1:500 dilution against Dylight 488 (Green). Alpha-tubulin and nuclei were counterstained with Dylight 550 (Red) and DAPI (Blue), respectively.



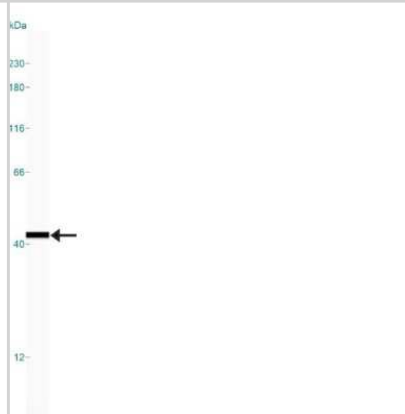
Immunocytochemistry/Immunofluorescence: GAPDH Antibody [NB300-327] - Confocal immunofluorescence analysis of HeLa cells using GAPDH (NB300-327) antibody (green). Nuclei was counterstained with DAPI (blue).



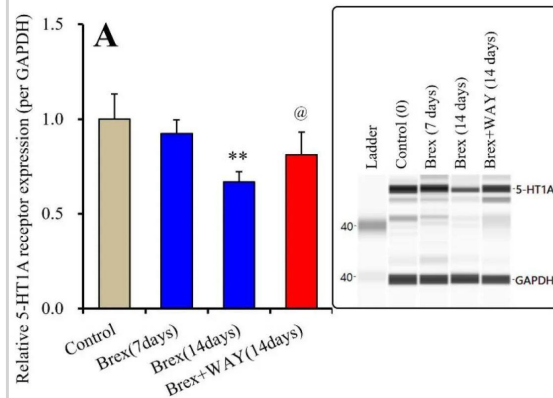
Immunocytochemistry/Immunofluorescence: GAPDH Antibody [NB300-327] - IF Confocal analysis of C2C12 cells using GAPDH antibody (NB300-327, 1:20). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



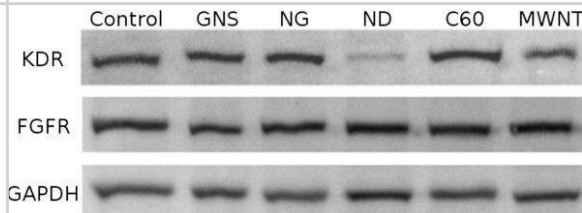
Simple Western: GAPDH Antibody [NB300-327] - Simple Western lane view shows a specific band for GAPDH in 0.2 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. Note: band observed higher than predicted 36 kDa molecular weight.



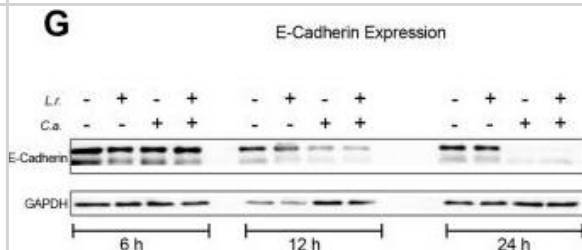
Western Blot: GAPDH Antibody [NB300-327] - Effects of subchronic administration (7 and 14 days) of therapeutic relevant concentration of Brex (Brex: 300 nM) and interaction between Brex and 5-HT1A receptor (5-HT1AR) antagonist WAY (10  $\mu$ M) on protein expression of 5-HT1A receptor in the plasma membrane fraction of cortical primary cultured astrocytes. In left side histograms, ordinate: mean  $\pm$  SD (n = 6) of the relative protein level of 5-HT1AR per GAPDH. \* p < 0.05, \*\* p < 0.01: relative to control (Brex-free) by one-way analysis of variance (ANOVA) with Tukey's post-hoc test, and @ p < 0.05: relative to Brex for 14 days by Student's T-test. Right side panels indicate their pseudo-gel images using capillary immunoblotting. Antibodies used: 5-HT1A (NBP2-21590) and GAPDH (NB300-327). Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35743014/>) licensed under a CC-BY license.



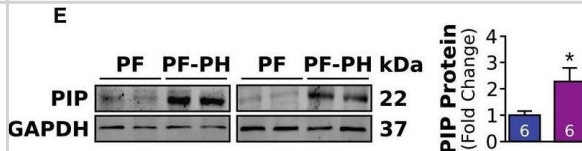
Representative immunoblot of KDR and FGFR CAM protein expression levels examined by Western blotting. GNS, graphene nanosheet; NG, graphite nanoparticle; ND, diamond nanoparticle; C60, fullerene C60; MWNT, multi-wall nanotube; KDR, vascular endothelial growth factor receptor; FGFR, fibroblast growth factor receptor; GAPDH, glyceraldehyde-3-phosphate dehydrogenase.



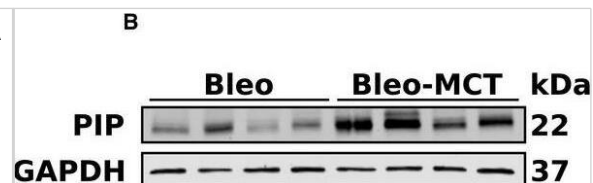
Growth of lactobacilli on IECs and their influence towards *C. albicans* cytotoxicity, adhesion, hyphal length and translocation. (G) E-Cadherin protein expression analyzed by western blot compared to GAPDH in IECs that were left uninfected or colonized with *L. rhamnosus* (MOI 50) and infected with *C. albicans* for 6, 12 and 24 h. Data are mean  $\pm$  s.e.m. \*P<0.05, \*\*P<0.01, \*\*\*P<0.005 (t-test). Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31413153/>), licensed under a CC-BY licence.



HMGB1 regulated autophagy in thyroid cancer cells (a) FTC-133/TPC-1 cells were transfected with HMGB1 shRNA and control shRNA and then starved by HBSS for 2 h. And LC3-I/II level was assayed by Western blot; (b) FTC-133/TPC-1 cells were transfected with HMGB1 shRNA and control shRNA and then pre-treated for 1 h with pepstatin A (PA, 10  $\mu$ M) and E64D (10  $\mu$ M) as indicated. Cells were subsequently treated for 3 h with HBSS in continuous presence or absence PA/E64D inhibitors. LC3-I/II, Beclin1 and p62 levels were assayed by Western blot; (c) Ultrastructural features in FTC-133/TPC-1 cells transfected with HMGB1 shRNA and control shRNA after a 3-h treatment of HBSS. More autophagosomes were seen in control shRNA plus HBSS-treated cells than in cells treated with HMGB1 shRNA plus HBSS. Arrows indicated autophagosomes Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/31331356/>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Compound MI-743 causes intracellular 8-oxo-dG accumulation and DNA damage. a MGC-803, HGC-27 and GES-1 cells were treated with DMSO or 5  $\mu$ M MI-743 for 48 h. Intracellular 8-oxo-dG was stained with Cy3-conjugated avidin. DNA was counterstained with 4,6-diamidino-2-phenylindole (DAPI). Images were acquired at  $\times$ 100 magnification by a Nikon Eclipse TE 2000-S fluorescence microscope. At least three independent experiments were performed for each group. b MGC-803, HGC-27 and GES-1 cells were treated with DMSO or 10  $\mu$ M MI-743 for 48 h and run in alkaline comet assay. Pictures were originally captured at  $\times$ 40 magnification. H<sub>2</sub>O<sub>2</sub> was used as positive control. c Tail moment was calculated by CometScore software. Three individual experiments were performed for each group. d–f Western blot analysis of the protein levels of MTH1, MUTYH, OGG1, p21, ATMpS1981 and p53pS15 in MGC-803, HGC-27 and GES-1 cells, treated with increasing concentrations of MI-743 (0, 1, 2, 4, 8 and 12  $\mu$ M). g, h Densitometry shows relative protein expression normalized for GAPDH. Data are representative of three independent experiments. i–k Western Blot analysis of the protein levels of MTH1, MUTYH, OGG1, p21, ATMpS1981 and p53pS15 of protein lysates, isolated from MGC-803, HGC-27 and GES-1 cells, which were treated with 12  $\mu$ M MI-743 for 0, 12, 24, 36 and 48 h. l, m Densitometry shows relative protein expression normalized for GAPDH. Data are presented as means  $\pm$  SD. Three individual experiments were performed for each group. \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001 as compared with the controls Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/31164636>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Dziembowski A, Krawczyk P, Mroczek S et al. SARS-CoV-2 mRNA vaccine is re-adenylated in vivo, enhancing antigen production and immune response Research Square 2023-06-07

Walk C, Mullenix G, Maynard C et al. In-feed supplementation of a novel 4<sup>th</sup> -generation phytase improves growth performance and reduces wooden breast severity in Ross 708 broilers through modulation of muscle glucose uptake and metabolism Research Square 2023-09-25 (WB, Chicken)

Müller LB, Mogensen M, Weaver DD, Pedersen PA. Occipital Horn Syndrome as a Result of Splice Site Mutations in ATP7A. No Activity of ATP7A Splice Variants Missing Exon 10 or Exon 15 Frontiers in Molecular Neuroscience 2021-04-21 [PMID: 33967692] (WB)

Gan KJ, Akram A, Blasius TL et al. GSK3 $\beta$  Impairs KIF1A Transport in a Cellular Model of Alzheimer's Disease but Does Not Regulate Motor Motility at S402 eNeuro 2020-10-16 [PMID: 33067366]

Drazkowska K, Tomecki R, Warminski M et al. 2'-O-Methylation of the second transcribed nucleotide within the mRNA 5' cap impacts the protein production level in a cell-specific manner and contributes to RNA immune evasion Nucleic Acids Research 2022-09-09 [PMID: 36018811] (WB)

Yang W, Han B, Chen Y, Geng F SAAL1, a novel oncogene, is associated with prognosis and immunotherapy in multiple types of cancer Aging 2022-08-13 [PMID: 35963646] (WB, Human)

Okada M, Fukuyama K, Motomura E Dose-Dependent Biphasic Action of Quetiapine on AMPK Signalling via 5-HT<sub>7</sub> Receptor: Exploring Pathophysiology of Clinical and Adverse Effects of Quetiapine International journal of molecular sciences 2022-08-14 [PMID: 36012369] (Simple Western, Rat)

### Details:

Dilution used 1:300

Fukuyama K, Motomura E, Okada M Brexpiprazole Reduces 5-HT<sub>7</sub> Receptor Function on Astroglial Transmission Systems International journal of molecular sciences 2022-06-12 [PMID: 35743014] (Simple Western, WB, Rat)

Baron DM, Fenton AR, Saez-Atienzar S et al. ALS-associated KIF5A mutations abolish autoinhibition resulting in a toxic gain of function Cell reports 2022-04-05 [PMID: 35385738] (In vitro, Mouse)

Fukuyama K, Motomura E, Shiroyama T, Okada M Impact of 5-HT<sub>7</sub> receptor inverse agonism of lurasidone on monoaminergic tripartite synaptic transmission and pathophysiology of lower risk of weight gain Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie 2022-02-24 [PMID: 35219120] (WB, Rat)

Kadhim HJ, Kang SW, Kuenzel WJ Possible roles of brain derived neurotrophic factor and corticotropin releasing hormone neurons in the nucleus of hippocampal commissure functioning within the avian neuroendocrine regulation of stress Stress (Amsterdam, Netherlands) 2021-05-28 [PMID: 34003076]

Sikorski K, Mehta A et al. A high-throughput pipeline for validation of antibodies. Nat Methods 2018-01-11 [PMID: 30377371] (Human)

### Details:

Antibody validation based on denaturing gel electrophoresis of biotinylated cell lysates (PAGE) followed by mass spectrometry (MS) and antibody array analysis (MAP).

More publications at <http://www.novusbio.com/NB300-327>



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### **Products Related to NB300-327**

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NBL1-10967	GAPDH Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
H00002597-P02-10ug	Recombinant Human GAPDH GST (N-Term) Protein

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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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