Product Datasheet

Luciferase Antibody (Luci 21 1-107) - BSA Free
NB600-307

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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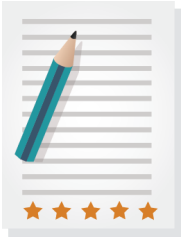
Updated 10/23/2024 v.20.1



NB600-307

Luciferase Antibody (Luci 21 1-107) - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Luci 21 1-107
Preservative	0.02% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein A or G purified
Buffer	PBS

Product Description

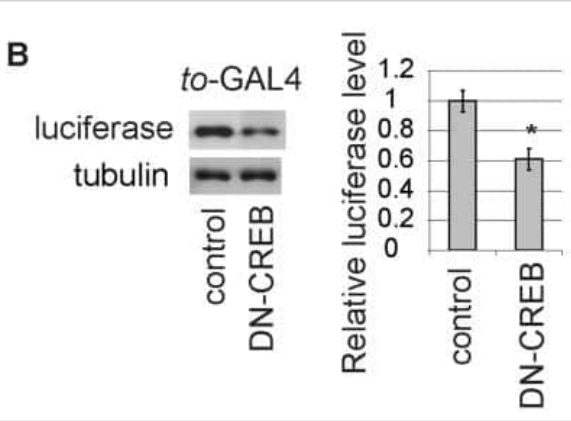
Host	Mouse
Species	Firefly
Reactivity Notes	Photinus pyralis (North American firefly).
Specificity/Sensitivity	This Luciferase Antibody (Luci 21 1-107) is specific for Luciferase, recognizing a peptide consisting of the first 258 amino acids. Further epitope mapping has not been done at this time.
Immunogen	This Luciferase Antibody (Luci 21 1-107) was developed against luciferase protein from Photinus pyralis (North American firefly). [UniProt# P08659].

Product Application Details

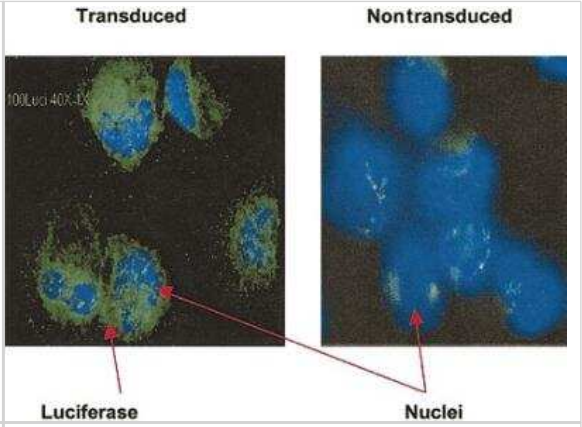
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:1000, Flow Cytometry 1:200. Use reported by customer review, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000, Immunohistochemistry-Frozen reported in scientific literature (PMID 31069316)
Application Notes	Western blot has been tested with Drosophila embryos. Purified Luciferase protein and Luciferase expressed in Drosophila adult co-migrate on Western blots with a band seen at ~61 kDa, representing Luciferase.

Images

Western Blot: Luciferase Antibody (Luci 21 1-107) [NB600-307] - Reduction in CREB activity in flies following DN-CREB expression in the fat body. CRE-Luciferase reporter protein was measured using anti-luciferase antibody in Western blots of body extracts from control flies (to-GAL4 driver only, control) or flies expressing DN-CREB in the fat body from the to-GAL4 driver (DN-CREB) (top panel). Blots were stripped and reprobed with anti-tubulin antibodies as a protein loading control (bottom panel). Signal intensities were quantified and are shown as ratios to control signals (mean+/-SD, n = 5; *p<0.05, Student's t-test). Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0008498) licensed under a CC-BY license.

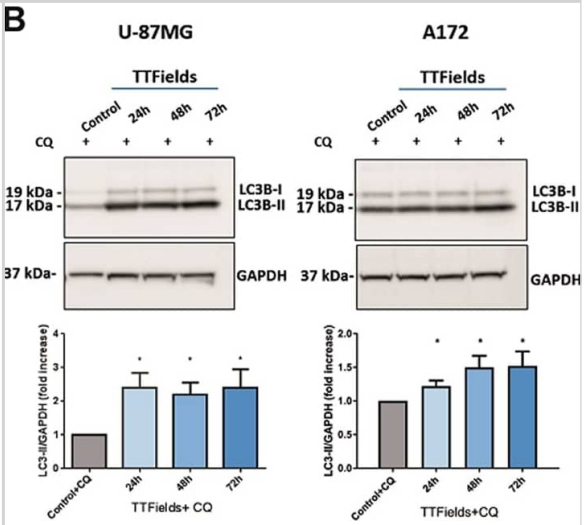


Immunohistochemistry: Luciferase Antibody (Luci 21 1-107) [NB600-307] - Detection of Luciferase expression in CD34+ cells by Immunohistochemistry. Cytospin slides prepared from transduced CD34+ cells after 3 days of culture were stained with monoclonal anti-Luciferase antibody. Luciferase-positive cells have green cytoplasm; nuclei stained with DAPI are blue. Nontransduced, cultured CD34+ cells were used as a negative control. Original magnification, 40X. Wang, X. et al., Dynamic tracking of human hematopoietic stem cell. Blood. 102 (10): 3478-3482, 2003.

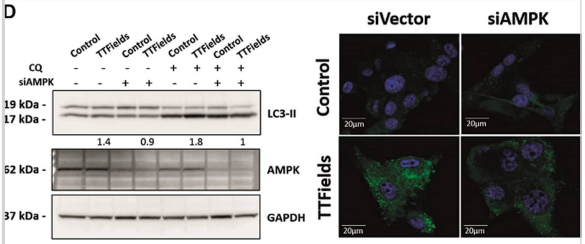


Western Blot: Luciferase Antibody (Luci 21 1-107) [NB600-307] - WB analysis of NB600-307 on Luciferase Protein (NB810-74573)

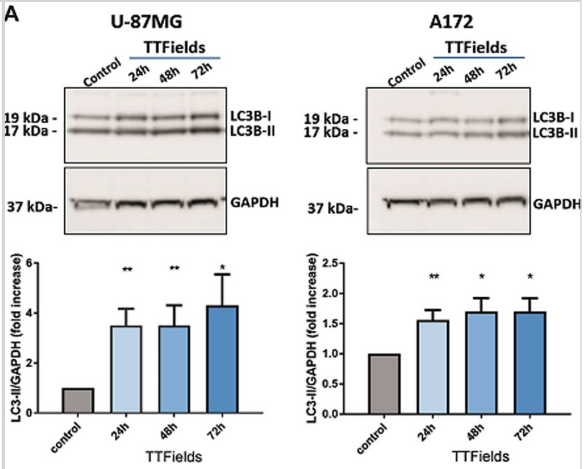
Western Blot: Luciferase Antibody (Luci 21 1-107) - BSA Free [NB600-307] - TTFields application leads to increased autophagic flux.a Ultra-structural STEM electron microscopy analysis of U-87 MG (upper panel) & A172 (lower panel) cells treated with TTFields for 48 h. Autophagosomes (blue arrows) & autolysosomes (green arrows) are indicated. b U-87 MG & A172 cells were either left untreated or were treated with TTFields for 24–72 h. CQ (20 μM) was added 4 h before cells were collected. Samples were immunoblotted for LC3 & GAPDH. Upper panel: representative blots. Lower panel: densitometric quantification of immunoblot signal, showing an average of at least three independent experiments (0.01 < *P < 0.05, Student's t-test). c U-87 MG & A172 cells were either left untreated or were treated with TTFields for 48 h. CQ (20 μM) was added at the last 3 h of treatment & cells were fixed & stained with anti-LC3 Ab (green) & DAPI (blue). Upper panel: representative images. Original magnifications: × 40. Lower panel: quantification of LC3 intensity, presented as average intensity per cell (**P < 0.01, Student's t-test). d U-87 MG cells were either left untreated or were treated with TTFields (48 h) or with vinblastin 25 nM (0.5 h). CQ (20 μM) was added at the last 3 h of treatment & cells were fixed & stained with anti-LC3 (green), LAMP1 (red), & DAPI (blue) (upper panel). Arrowheads indicate the strongest colocalization staining in each cell. Intensity histograms of LAMP1 & LC3 fluorescent signal calculated from the region of interest indicated by the white bar (lower panel). Representative images are shown Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30341282), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



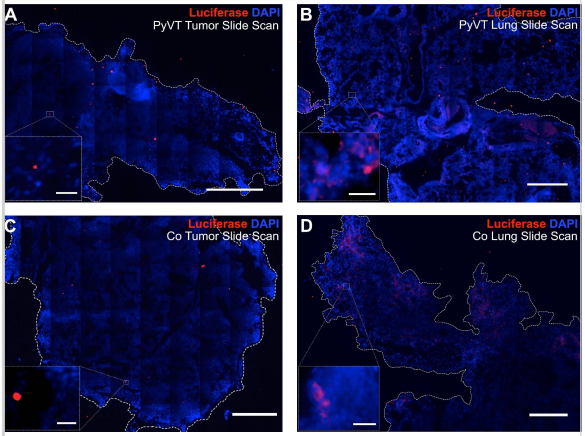
Western Blot: Luciferase Antibody (Luci 21 1-107) - BSA Free [NB600-307] - Induction of autophagy by TTFields is AMPK dependent.a U-87 MG & A172 cells either left untreated or treated w/ TTFields for indicated time points. Immunoblot analysis of GFP78 protein. Numeric values represent fold increase in GRP78 signal, normalized to loading control (GAPDH), relative to untreated control. b Quantification of intracellular ATP levels in U-87 MG cells either left untreated or treated w/ TTFields for 72 h.Results presented as average ATP concentration (nmol/2 × 106 cells) from 3 independent experiments (*P < 0.01, Student's t-test). c U-87 MG & A172 cells either left untreated or treated w/ TTFields for indicated time points. Immunoblot analysis of pAMPK & pULK1proteins. GAPDH used as loading control. (5D-F) U-87 MG cells transfected w/ AMPK-targeting siRNA (siAMPK) or w/ siRNA sham vector (siVector), & incubated for 48 h w/ or w/out TTFields application. CQ 20 μM added for last 4 h of treatment where indicated. d (left panel) Immunoblot analysis of LC3 & AMPK. Numeric values represent fold-change in LC3-II signal, normalized to GAPDH signal, relative to respective control. d (right panel) CQ-treated cells fixed & stained for LC3 (green) & DAPI (blue), original magnifications: × 40. e Cell count of siAMPK- or siVector-expressing cells after TTFields treatment. (0.01 < *P < 0.05, Student's t-test, n = 3). f siVector- & siAMPK-transfected U-87 MG cells either left untreated or treated w/ TTFields for 48 h. Cells then fixed & stained for cleaved caspase-3 (green) & DAPI (blue) (left panel). Images from each treatment analyzed manually & fraction of cleaved caspase-3-positive cells calculated for at least 200 cells from each group (right panel) (**P < 0.01, Student's t-test, n = 2) Image collected & cropped by CiteAb from following publication (https://pubmed.ncbi.nlm.nih.gov/30341282), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Luciferase Antibody (Luci 21 1-107) - BSA Free [NB600-307] - TTFields induce autophagy in glioma cell lines.a U-87 MG & A172 cells were either left untreated or treated with TTFields at the last 24 h, 48 h, or 72 h of culturing. All cultures were plated on the same time, incubated overnight to allow cell attachment, & collected 72 h afterwards. Cells were collected, lysed, & samples were analyzed using immunoblotting for LC3 & GAPDH. Upper panel: representative blots. Lower panel: densitometric quantification of immunoblot signal, showing an average of at least three independent experiments (0.01 < *P < 0.05, **P < 0.01, Student's t-test). b Paraffin-embedded sections from sham- or TTFields-treated rats were stained with anti-LC3 Ab (green) & DAPI (blue). Representative images are presented. c Quantification of LC3 intensity, presented as fold increase from corresponding control (*P < 0.05, Student's t-test) Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30341282), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Luciferase Antibody (Luci 21 1-107) - BSA Free [NB600-307] - Immunofluorescence imaging of luciferase protein as a reporter of hybrid formation. Entire primary tumor & lung sections were imaged via tile scanning, & each image of the scan was carefully analyzed to confirm or refute positive staining for luciferase. The luciferase signal was considered a positive signal if it was above background levels associated with negative controls & corresponded to the cytoplasm of a cell with a nucleus. Rare luciferase-positive cells were detected in the primary tumors. Most red signal was not in the cytoplasm of cells associated with nuclei and, therefore, considered nonspecific [insets (a), (c)]. The lungs containing metastases on the other hand [(b), (d)] contained a large number of bona fide luciferase-positive cells corresponding to fusion products. Scale bars on slide scans = 100 µm. Scale bars on 40× inset = 25 µm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31069316), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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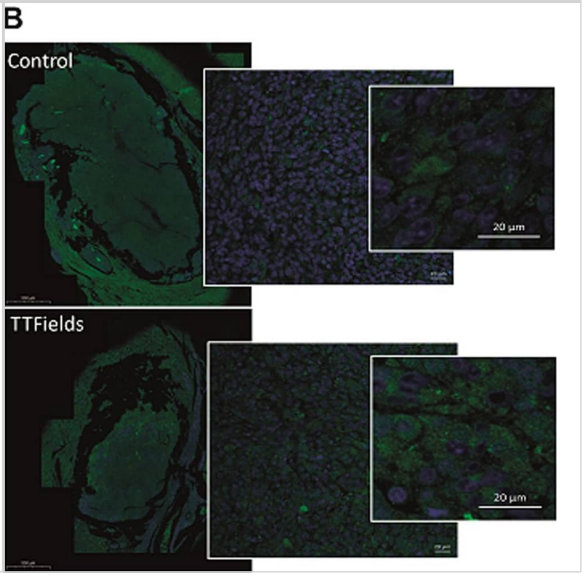

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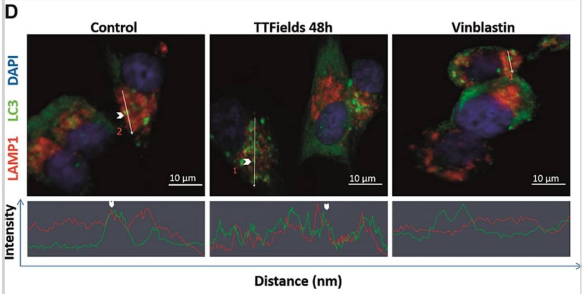

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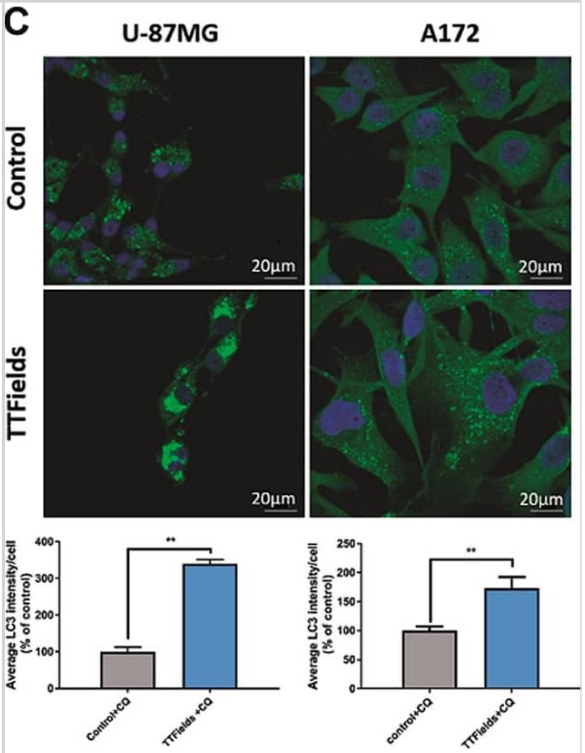

Publications

Westendorf K, □entelis S, Wang L et al. LY-CoV1404 (bebtelovimab) potently neutralizes SARS-CoV-2 variants Cell Reports 2022-05-01 [PMID: 35568025]

Masroni, MSB;Lee, KW;Lee, VKM;Ng, SB;Law, CT;Poon, KS;Lee, BT;Liu, Z;Tan, YP;Chng, WL;Tucker, S;Ngo, LS;Yip, GWC;Nga, ME;Hue, SSS;Putti, TC;Bay, BH;Lin, Q;Zhou, L;Hartman, M;Loh, TP;Lakshmanan, M;Lee, SY;Tergaonkar, V;Chua, H;Lee, AVH;Yeo, EYM;Li, MH;Chang, CF;Kee, Z;Tan, KM;Tan, SY;Koay, ES;Archetti, M;Leong, SM; Dynamic altruistic cooperation within breast tumors Molecular cancer 2023-12-14 [PMID: 38093346]

Bin Yu, Shoeb Ikhlas, Chunsheng Ruan, Xingxing Zhong, Dongsheng Cai Innate and Adaptive Immunity of Murine Neural Stem Cell-Derived piRNA Exosomes/Microvesicles against Pseudotyped SARS-CoV-2 and HIV-Based Lentivirus iScience 2020-11-13 [PMID: 33205008]

Dadi Jiang, Youming Guo, Tianyu Wang, Liang Wang, Yuelong Yan, Ling Xia, Rakesh Bam, Zhifen Yang, Hyemin Lee, Takao Iwawaki, Boyi Gan, Albert C Koong IRE1α determines ferroptosis sensitivity through regulation of glutathione synthesis. Nature communications 2024-05-15 [PMID: 38750057]

Huiyun Li, Yusong Yuan, Lingpu Zhang, Chun Xu, Hailin Xu, Zhiwei Chen Reprogramming Macrophage Polarization, Depleting ROS by Astaxanthin and Thioketal-Containing Polymers Delivering Rapamycin for Osteoarthritis Treatment. Advanced science (Weinheim, Baden-Wurttemberg, Germany) 2023-12-14 [PMID: 38093659]

Tatangelo V, Boncompagni G, Capitani N et al. p66Shc Deficiency in Chronic Lymphocytic Leukemia Promotes Chemokine Receptor Expression Through the ROS-Dependent Inhibition of NF-?B Frontiers in Oncology 2022-06-29 [PMID: 35847884] (Flow Cytometry)

Vara-P□rez M, Rossi M, Van den Haute C et al. BNIP3 promotes HIF-1?-driven melanoma growth by curbing intracellular iron homeostasis The EMBO Journal 2021-05-17 [PMID: 33932034] (In vivo assay)

Law EK, Levin-Klein R, Jarvis MC et al. APOBEC3A catalyzes mutation and drives carcinogenesis in vivo Journal of Experimental Medicine 2020-12-07 [PMID: 32870257]

Westendorf K, Zentelis S, Wang L et al. LY-CoV1404 (bebtelovimab) potently neutralizes SARS-CoV-2 variants bioRxiv [PMID: 33972947]

Sasaki L, Hamada Y, Yarimizu D et al. Intracrine activity involving NAD-dependent circadian steroidogenic activity governs age-associated meibomian gland dysfunction Nature Aging 2022-02-01 [PMID: 37117756] (IHC-P)

Chitwood, C A, Dietzsch, C Et al. Breast tumor cell hybrids form spontaneously in vivo and contribute to breast tumor metastases. APL Bioeng 2018-09-01 [PMID: 31069316] (IF/IHC)

Yu CI, Martinek J, Wu TC et al. Human KIT+ myeloid cells facilitate visceral metastasis by melanoma The Journal of experimental medicine 2021-06-07 [PMID: 33857287] (Mouse)

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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NB600-307PE	Luciferase Antibody (Luci 21 1-107) [PE]

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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