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.

Reviews: 2 Publications: 29

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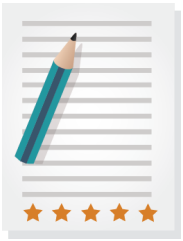
Updated 9/9/2025 v.20.1



NB600-307

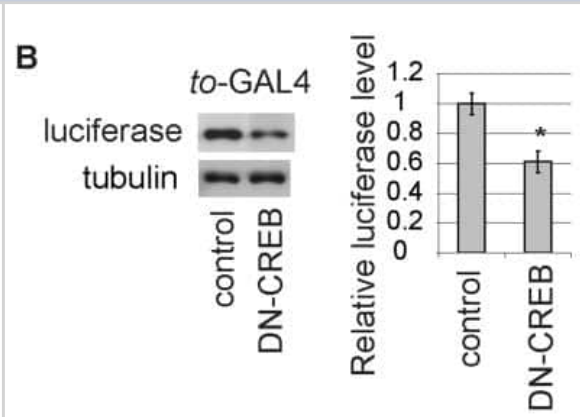
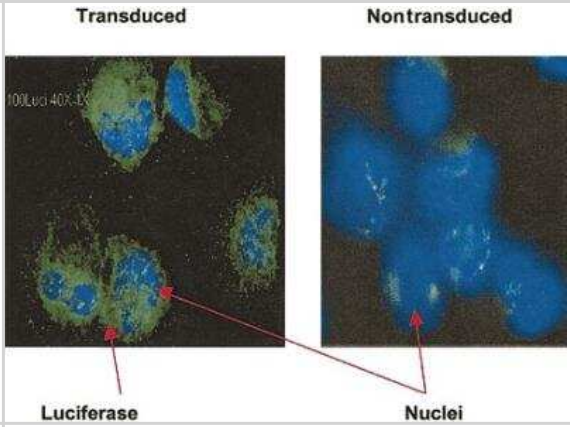
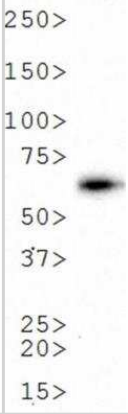
Luciferase Antibody (Luci 21 1-107) - BSA Free

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

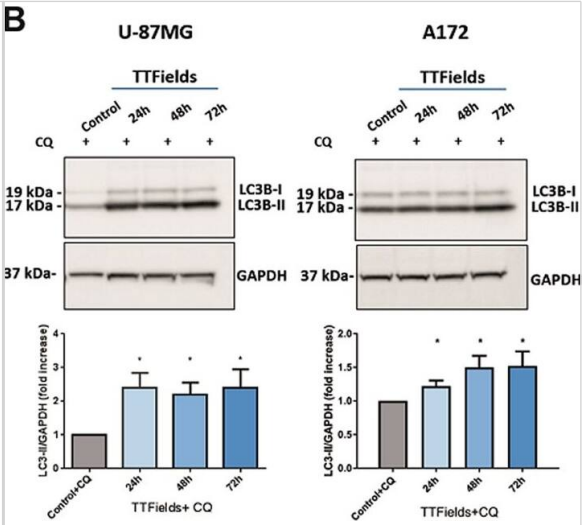
Product Description	
Description	Novus Biologicals Mouse Luciferase Antibody (Luci 21 1-107) - BSA Free (NB600-307) is a monoclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-Luciferase Antibody: Cited in 29 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
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, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
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.

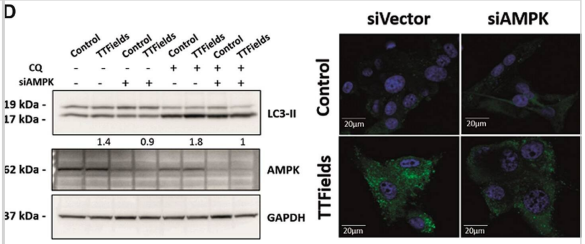
Images

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)	

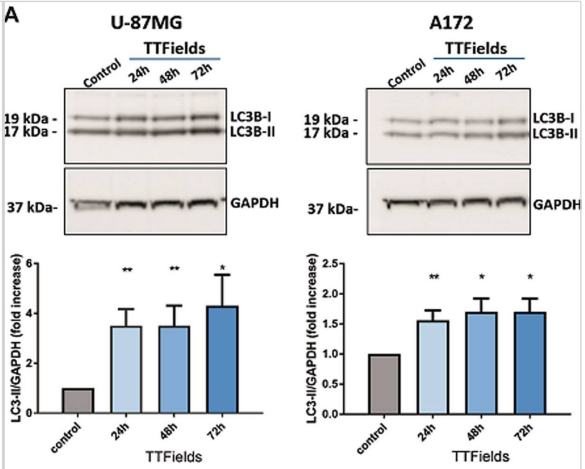
Western Blot: Luciferase Antibody (Luci 21 1-107) - BSA Free [NB600-307] - TTFields application leads to increased autophagic flux.a Ultra-structural STEM electron microscopy analysis of U-87 MG (upper panel) & A172 (lower panel) cells treated with TTFields for 48 h. Autophagosomes (blue arrows) & autolysosomes (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.



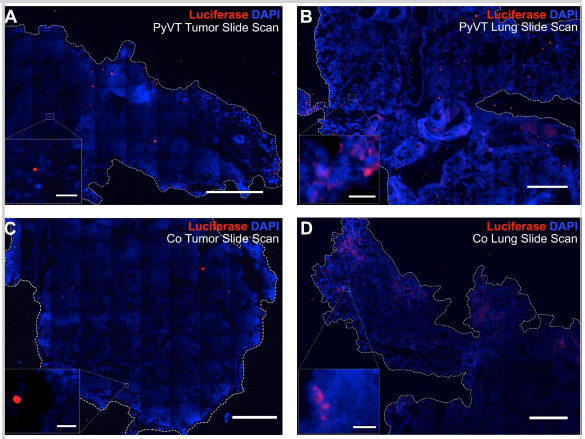
Western Blot: Luciferase Antibody (Luci 21 1-107) - BSA Free [NB600-307] - Induction of autophagy by TTFields is AMPK dependent.a U-87 MG & A172 cells either left untreated or treated w/ TTFields for indicated time points. Immunoblot analysis of GFP78 protein. Numeric values represent fold increase in 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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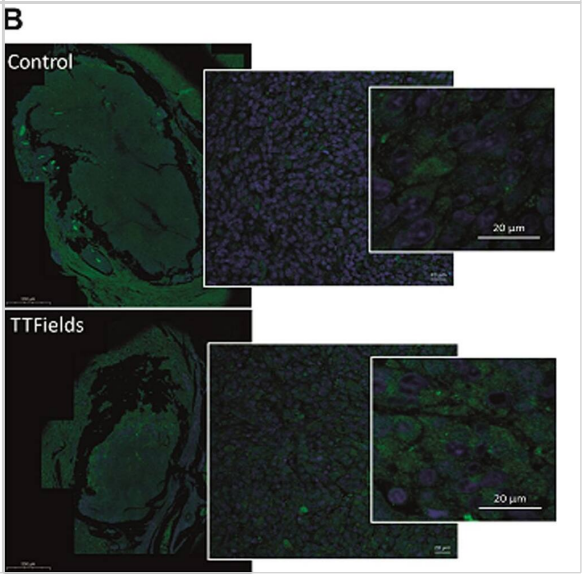

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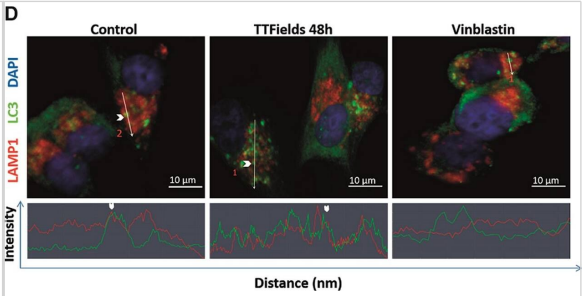

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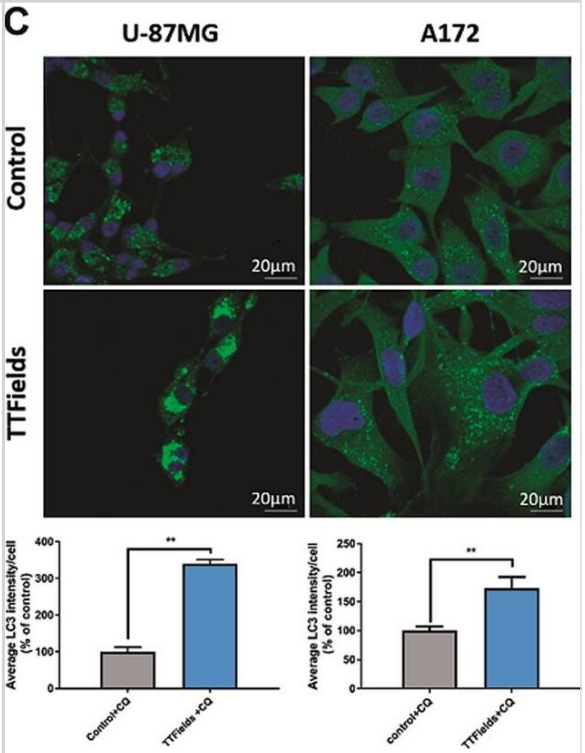

Publications

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] (Immunocytochemistry/ Immunofluorescence, Firefly)

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] (Immunocytochemistry/ Immunofluorescence, Firefly)

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] (Immunocytochemistry/ Immunofluorescence, Firefly)

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]

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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Products Related to NB600-307

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

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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