# **Product Datasheet**

# GFP Antibody - BSA Free NB600-303

Unit Size: 0.05 ml

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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# NB600-303

GFP Antibody - BSA Free

GFP Antibody - BSA Free	
Product Information	
Unit Size	0.05 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Product Description	
Description	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Green Fluorescent Protein (Aequorea victoria) coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities.  Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.
Host	Rabbit
Species	Non-species specific
Immunogen	The immunogen is a Green Fluorescent Protein (GFP) fusion protein corresponding to the full length amino acid sequence (246aa) derived from the jellyfish Aequorea victoria.
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Electron Microscopy, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1:1000-1:3000, Simple Western, Flow Cytometry 1:10 - 1:1000, ELISA 1:10000-1:40000, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 1:10 - 1:500, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:10 - 1:500, Immunohistochemistry-Frozen 1:10 - 1:500, Electron Microscopy, Chromatin Immunoprecipitation (ChIP)



#### **Application Notes**

This product has been tested in ELISA and western blot. Expect ~27kDa band. Although not tested, this antibody is suitable for IP, IF, ChIP, and Flow. Specific conditions for reactivity should be optimized by the end user.

Immunoprecipitation reported successful by customer review.

Immunohistochemistry-Paraffin (PMID: 21311774)

Immunocytochemistry/Immunofluorescence was reported in scientific literature.

Use in Flow Cytometry reported in scientific literature (PMID: 23903657).

Use in Electron Microscopy reported in scientific literature (PMID 25538186).

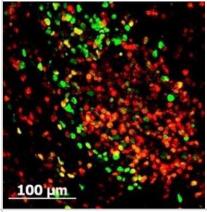
Use in Immunohistochemistry-Frozen reported in multiple pieces of scientific literature.

Use in chromatin immunoprecipitation reported in scientific literature (PMID 28174757).

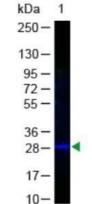
See <u>Simple Western Antibody Database</u> for Simple Western validation: tested in human melanoma cells; antibody dilution of 1:500; separated by size

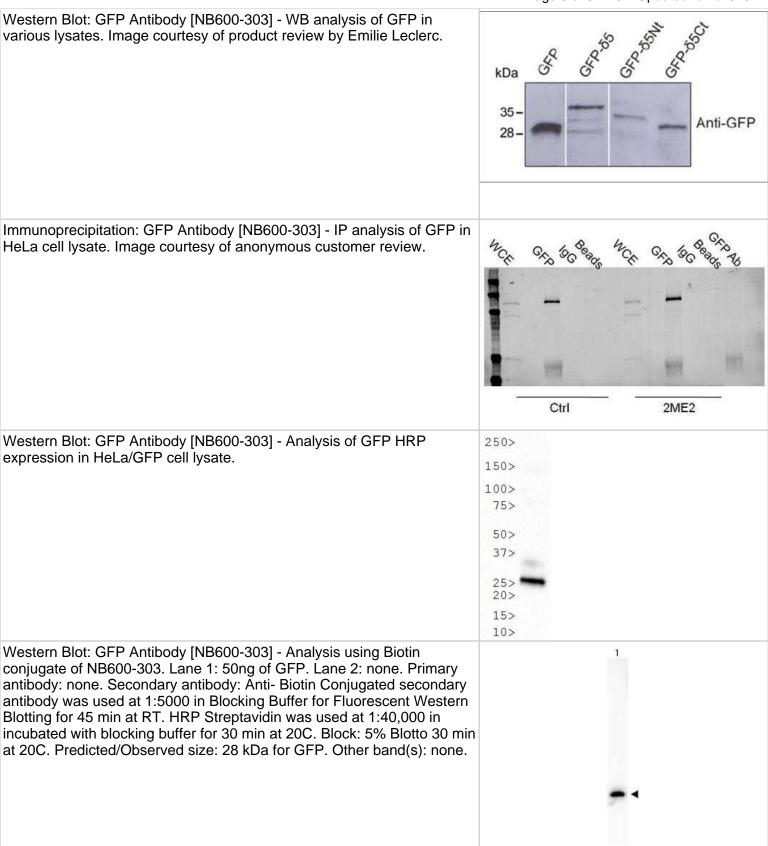
# **Images**

Immunocytochemistry/Immunofluorescence: GFP Antibody [NB600-303] - Analysis of FITC conjugate of NB600-303. Staining of mouse spleen cells Tissue: spleen cells infected with MHV68-H2bYFP. As seen in: Collins CM, Speck SH (2012) Tracking Murine Gammaherpesvirus 68 Infection of Germinal Center B Cells.



Western Blot: GFP Antibody [NB600-303] - Analysis using the FITC conjugate of NB600-303. Detection of Lane 1: GFP. Load: 50 ug per lane. Primary antibody: none. Secondary antibody: Fluorescein conjugated Anti-GFP at 1:1000 for 60 min at RT. Block: 1% BSA-TTBS for 30 min at RT. Predicted/Observed size: 28 kDa, 28 kDa.



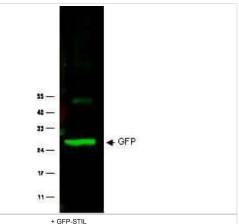




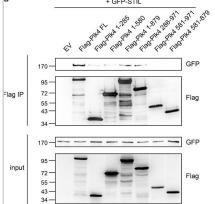
Immunohistochemistry: GFP Antibody [NB600-303] - Eight-week-old d Lgr5-GFP mice were injected with CCL4 and rHGF or/and rRspo1 **PBS** rHGF/rRspo1 proteins (0.1 ug/mice/time), as indicated in a, Lgr5 expression was measured using an immunofluorescent assay with anti-GFP antibody. Image collected and cropped by CiteAb from the following publication Oil (https://www.nature.com/articles/s41467-017-01341-6) licensed under a CC-BY license. CCI4 Western Blot: GFP Antibody [NB600-303] - Lane 1: 293FT cells transfected with CDK4 dominant negative. Lane 2: 293FT cells poitive control. Load: 25 ug per lane. Primary antibody: GFP antibody at 1:400 for overnight at 4C. Secondary antibody: IRDye800 (TM) rabbit Csecondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C. Predicted/Observed size: 27 kDa for GFP. GFP Immunocytochemistry/Immunofluorescence: GFP Antibody [NB600-303] Western Blot of GFP Antibody. Lane 1: 293FT cells transfected with CDK4 dominant negative. Lane 2: 293FT cells poitive control. Load: 25 ug per lane. Primary antibody: GFP antibody at 1:400 for overnight at 4C. Secondary antibody: IRDye800(TM) rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C. Predicted/Observed size: 27 kDa for GFP. **GFP** 



Western Blot of Rabbit anti-GFP antibody. Lane 1: Wild type GFP (0.1 ug) was used to spike HeLa whole cell lysate. Lane 2: none. Load: 30 ug per lane. Primary antibody: GFP antibody at 1:1000 for overnight at 4C. Secondary antibody: IRDye800(TM) Goat-a-Rabbit IgG [H&L] MX10 () at 1:10,000 for 45 min at RT. Block: 5% BLOTTO in PBS overnight at 4C. Predicted/Observed size: 27 kDa for epitope tag GFP. Other band(s): none.

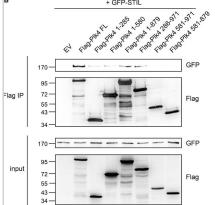


The polo-boxes of Plk4 are not sufficient to mediate STIL binding.(A) Scheme of Flag-Plk4 fragments. (B) After overexpression of Flag-Plk4-fragments (A) and GFP-STIL in HEK293T cells, cell lysates were subjected to immunoprecipitations using anti-Flag antibodies. Coprecipitation of GFP-STIL with Flag-Plk4 fragments was detected by western blotting using anti-GFP and anti-Flag antibodies.

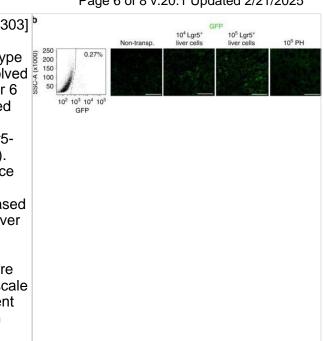


Western Blot: GFP Antibody [NB600-303] - The polo-boxes of Plk4 are not sufficient to mediate STIL binding.(A) Scheme of Flag-Plk4 fragments. (B) After overexpression of Flag-Plk4-fragments (A) & GFP-STIL in HEK293T cells, cell lysates were subjected to immunoprecipitations using anti-Flag antibodies. Coprecipitation of GFP-STIL with Flag-Plk4 fragments was detected by western blotting using anti-GFP & anti-Flag antibodies. Image collected & cropped by CiteAb from the following publication

(https://journals.biologists.com/bio/article/4/3/370/1390/Plk4-dependent-phosphorylation-of-STIL-is-required), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: GFP Antibody [NB600-303] Lgr5+ liver stem cells transplantation decreased liver fibrosis. a Schematic overview of the experimental setup. Eight-week-old wild-type C57 mice were i.p. injected with CCL4 (2 ml/kg, Sigma-Aldrich) dissolved in olive oil at a ratio of 1:4, or olive oil alone (2 ml/kg) twice a week for 6 in olive oil at a ratio of 1:4, or olive oil alone (2 ml/kg) twice a week for 6 weeks. Lgr5-GFP+ liver stem cells or primary hepatocyte (PH) derived from Lgr5-GFP mice were transplanted into the liver fibrosis mice by intrasplenical injection on day 0. b Lgr5+ cells were isolated from Lgr5-GFP mice treated with CCL4 by FACS assay for transplantation (left). The liver Lgr5 expression was stained using anti-GFP antibody in mice with Lgr5+ cells or PH transplantation (right) on day 40. n = 10 mice, scale bars, 200 µm. c, d Lgr5+ liver stem cells transplantation decreased CCL4-induced liver fibrosis & recovered liver functions. Lgr5-GFP+ liver stem cells or PH transplantation were described in a; the livers were harvested & stained using H&E & Sirius Red for fibrosis analysis & quantification of positive-staining areas measured by Image J software (c). The serum was harvested for ALT & AST analysis (d, e). For c, scale bars, 200 µm, the results are shown as mean ± s.d. of five independent sections taken randomly per mice & a total of 50 tissue specimens in each group (n = 10 mice) p < 0.05, p < 0.01. For d, e, triplicates for each condition were analyzed. The results are shown as mean ± s.d. of three independent experiments. \*p < 0.05, \*\*p < 0.01 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29079780), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



#### **Publications**

Jakub Luptak, Donna L. Mallery, Aminu S. Jahun, Anna Albecka, Dean Clift, Osaid Ather et al. TRIM7 Restricts Coxsackievirus and Norovirus Infection by Detecting the C-Terminal Glutamine Generated by 3C Protease Processing Viruses 2022-07-23 [PMID: 35893676] (Simple Western)

Seaho Kim, CheukMan C Au, Mohd Azrin Bin Jamalruddin, Naira Essam Abou-Ghali, Eiman Mukhtar, Luigi Portella, Adeline Berger, Daniel Worroll, Prerna Vatsa, David S Rickman, David M Nanus, Paraskevi Giannakakou, Erica A Golemis, Erica A Golemis AR-V7 exhibits non-canonical mechanisms of nuclear import and chromatin engagement in castrate-resistant prostate cancer eLife 2022-07-18 [PMID: 35848798]

Jakob U, Oleson B, Bhattrai J et al. Early life changes in histone landscape protect against age-associated amyloid toxicities through HSF-1 dependent regulation of lipid metabolism Research Square 2023-04-20 (WB)

Details:

Dilutions: 1:2000

Niekamp P, Scharte F, Sokoya T et al. Ca2+-activated sphingomyelin scrambling and turnover mediate ESCRT-independent lysosomal repair Nature communications [PMID: 35388011]

Ke, X, Do, D C Et al. Ras homolog family member A/Rho-associated protein kinase 1 signaling modulates lineage commitment of mesenchymal stem cells in asthmatic patients through lymphoid enhancer-binding factor 1. J Allergy Clin Immunol 2019-04-01 [PMID: 30194990] (IF/IHC)

Thakkar PV, Kita K, Castillo UD Et al. CLIP-170S is a microtubule +TIP variant that confers resistance to taxanes by impairing drug-target engagement Developmental cell 2021-10-12 [PMID: 34672971]

Kotagama K, Schorr AL, Steber HS et al. ALG-1 Influences Accurate mRNA Splicing Patterns in the Caenorhabditis elegans Intestine and Body Muscle Tissues by Modulating Splicing Factor Activities Genetics 2019-05-11 [PMID: 31073019] (WB, IP)

Barenz F, Kschonsak YT, Meyer A et al. Ccdc61 controls centrosomal localization of Cep170 and is required for spindle assembly and symmetry Mol Biol Cell 2018-10-26 [PMID: 30354798] (WB)

Lobs AK, Schwartz C, Thorwall S et al. Highly Multiplexed CRISPRi Repression of Respiratory Functions Enhances Mitochondrial Localized Ethyl Acetate Biosynthesis in Kluyveromyces marxianus ACS Synth Biol 2018-10-26 [PMID: 30354074] (WB)

Lin Y, Fang ZP, Liu HJ et al. HGF/R-spondin1 rescues liver dysfunction through the induction of Lgr5(+) liver stem cells Nat Commun 2017-10-29 [PMID: 29079780] (ICC/IF)

Seneviratne APB, Turan Z, Hermant A et al. Modulation of estrogen related receptor alpha activity by the kinesin KIF17 Oncotarget 2017-09-09 [PMID: 28881568] (WB)

Lo YH, Chung E, Li Z et al. Transcriptional Regulation by ATOH1 and its Target SPDEF in the Intestine Cell Mol Gastroenterol Hepatol 2017-02-09 [PMID: 28174757] (Chemotaxis)

More publications at <a href="http://www.novusbio.com/NB600-303">http://www.novusbio.com/NB600-303</a>





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## **Products Related to NB600-303**

**HAF008** Goat anti-Rabbit IgG Secondary Antibody [HRP]

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

NBP2-24891 Rabbit IgG Isotype Control

GFP Antibody Blocking Peptide NB100-56401PEP

#### 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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