

# Product Datasheet

## beta-Actin Antibody - BSA Free NB600-503

Unit Size: 0.05 ml

Store at 4C. Do not freeze.

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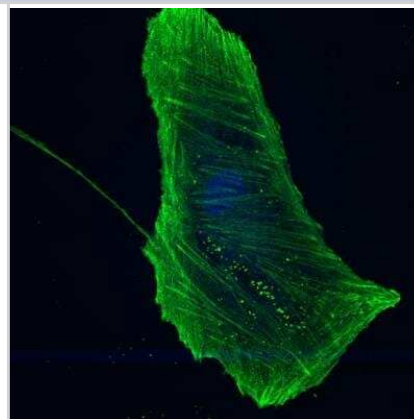
**NB600-503**

beta-Actin Antibody - BSA Free

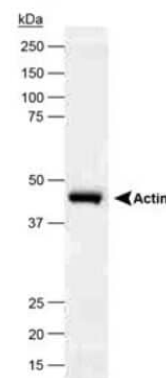
Product Information	
Unit Size	0.05 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Target Molecular Weight	42 kDa
Product Description	
Host	Rabbit
Gene ID	60
Gene Symbol	ACTB
Species	Human, Mouse, Rat, Porcine, Avian, Bovine, Chinese Hamster, Fish, Primate, Rabbit
Reactivity Notes	Rabbit reactivity and Fish reactivity reported in scientific literature (PMID: 23813946 and 25842206 respectively). Expected to cross-react with a wide range of species due to sequence identity. Bovine reactivity reported in scientific literature (PMID:33066332).
Immunogen	This beta-Actin Antibody was made from a synthetic peptide made to an N-terminal region of human Beta Actin. [UniProt P60709]
Product Application Details	
Applications	Western Blot, Simple Western, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Proximity Ligation Assay, Block/Neutralize
Recommended Dilutions	Western Blot 1:100-1:2000, Simple Western 1:12.5, Flow Cytometry 1:10-1:1000, ELISA, Immunohistochemistry 1:100, Immunocytochemistry/Immunofluorescence, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:100, Proximity Ligation Assay, Block/Neutralize
Application Notes	See <a href="#">Simple Western Antibody Database</a> for Simple Western validation: tested in HeLa lysate (0.1 mg/ml); antibody dilution of 1:12.5; separated by size; detects a band at 50 kDa

## Images

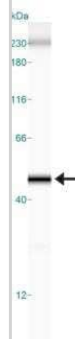
Immunocytochemistry/Immunofluorescence: beta-Actin Antibody [NB600-503] - Cultured pig trabecular meshwork cells stained with beta-Actin antibody at a dilution of 1:500 followed by an anti-rabbit Alexa Fluor488 at 1:1000 dilution (green). Image from verified customer review.



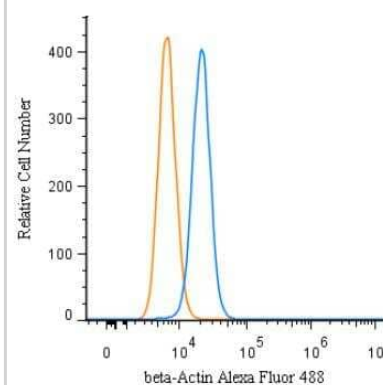
Western Blot: beta-Actin Antibody [NB600-503] - Rabbit polyclonal at 1/5000.



Simple Western: beta-Actin Antibody [NB600-503] - Simple Western lane view shows a specific band for Beta Actin in 0.1 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

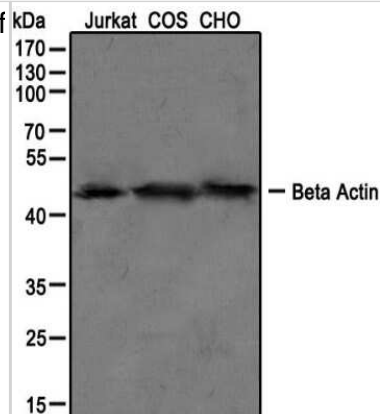


Flow Cytometry: beta-Actin Antibody [NB600-503] - An intracellular stain was performed on HeLa cells with beta-actin Antibody NB600-503AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.

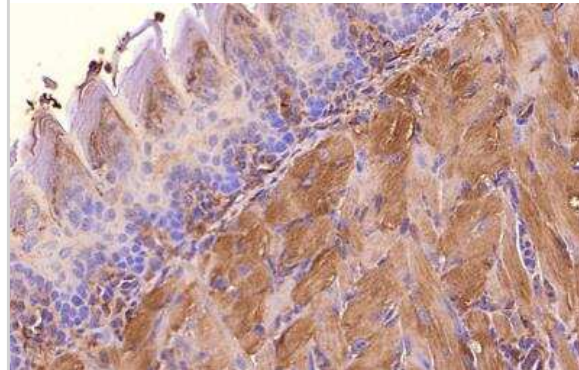


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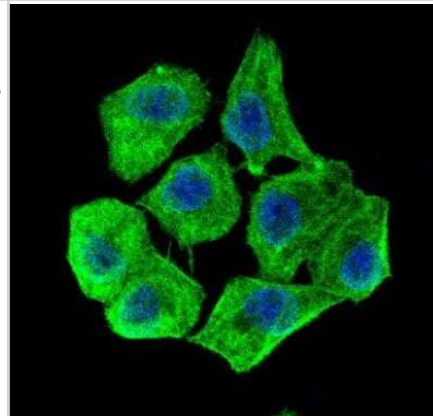
Western Blot: beta-Actin Antibody [NB600-503] - Western blot analysis of Jurkat, COS, and CHO cell lysate using beta actin antibody at 1:100.



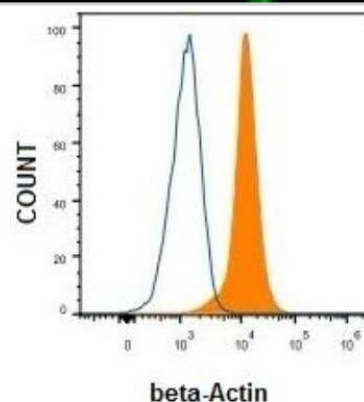
Immunohistochemistry-Paraffin: beta-Actin Antibody [NB600-503] - Analysis of Beta Actin in mouse epidermis using DAB with hematoxylin counterstain.



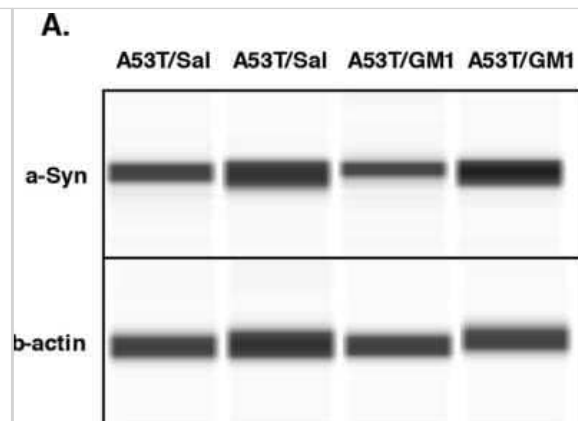
Immunocytochemistry/Immunofluorescence: beta-Actin Antibody [NB600-503] - IF Confocal analysis of HeLa cells using Beta Actin antibody (NB600-503, 1:5). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). DAPI was used to stain the cell nuclei (blue).



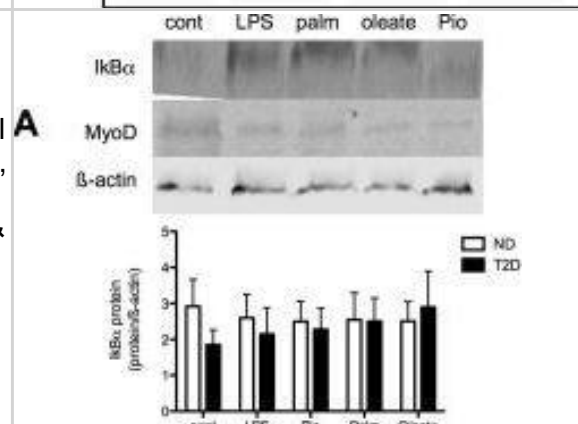
Flow Cytometry: beta-Actin Antibody [NB600-503] - Analysis of HeLa cells using mouse Monoclonal beta-Actin antibody (Orange) and Isotype control Antibody (Blue).



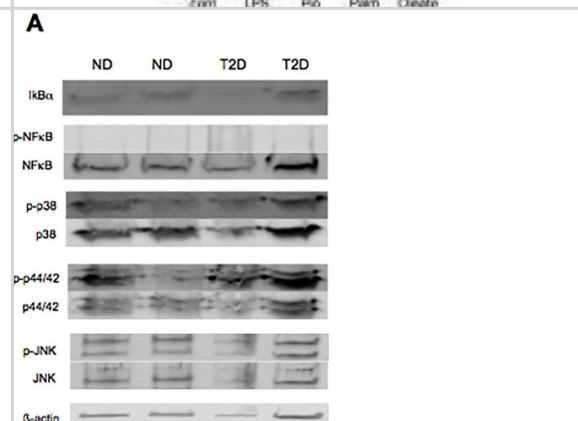
Simple Western: beta-Actin Antibody [NB600-503] - Early start GM1 administration did not affect alpha-synuclein expression or transport to the striatum. When assessed 1 week following AAV-A53T alpha-synuclein injection, levels of striatal alpha-synuclein were no different in saline (N=6) vs. GM1-treated animals (N=6), suggesting no influence of GM1 on A53T alpha-synuclein transduction or transport to the striatum. Representative Wes Simple Western blots are shown after cropping (full length images of blots are presented as Supplementary Fig. 2. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-019-42847-x>), licensed under a CC-BY license.



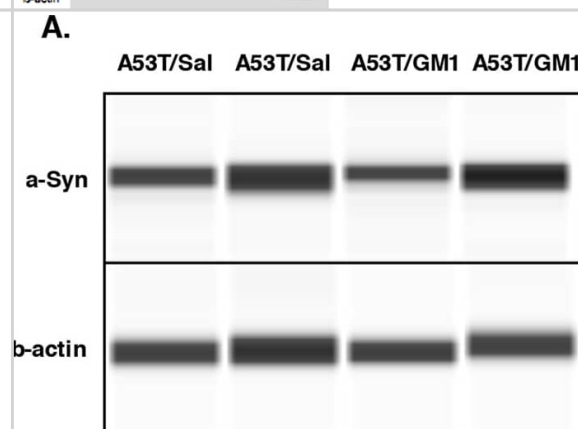
Western Blot: beta-Actin Antibody [NB600-503] - Regulation of inflammatory signaling in hSMC.ND (open bars) & T2D (solid bars) cells extracted after 48 hr treatment with LPS, Pioglitazone (Pio), palmitate or oleate. Results expressed relative to untreated control for each individual set of cells, Ave + SEM. (A) Ikb $\alpha$  protein, n = 7–12 & 6–15 for ND & T2D, respectively. (B) Total & phospho-p38, n = 6–14 & 5–8. (C) Total & phospho-p44/42, n = 7–13 & 7–11. (D) Total & phospho-JNK, n = 9–12 & 3–8. \* p<0.05 T2D vs ND. †p<0.05 T2D response vs ND response Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/27453994>), licensed under a CC0-1.0 license. Not internally tested by Novus Biologicals.



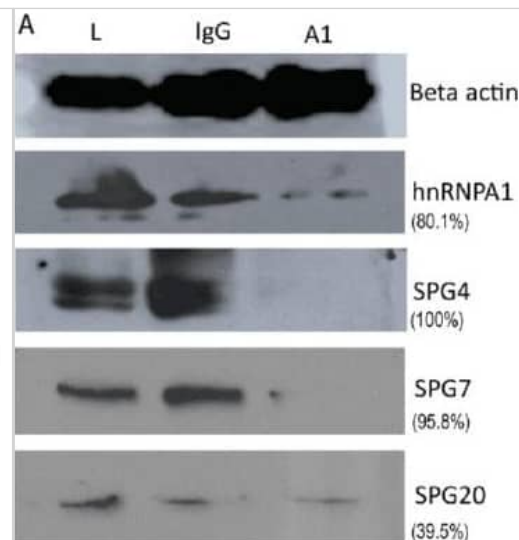
Western Blot: beta-Actin Antibody [NB600-503] - Impact of T2D on inflammatory signaling in hSMC. Proteins extracted from ND (open bars) & T2D (solid bars) hSMC under control conditions. (A) Representative western blots. (B) Quantification of protein expression normalized to loading control ( $\beta$ -actin). Ave + SEM, n = 13–21 for ND, 10–16 for T2D. (C) Protein phosphorylation, expressed as ratio of phosphorylated to total protein. Ave + SEM, n = 13–17 for ND, 9–15 for T2D. \*p<0.05 vs ND Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/27453994>), licensed under a CC0-1.0 license. Not internally tested by Novus Biologicals.



Western Blot: beta-Actin Antibody [NB600-503] - Early start GM1 administration did not affect  $\alpha$ -synuclein expression or transport to the striatum. (A,B) When assessed 1 week following AAV-A53T  $\alpha$ -synuclein injection, levels of striatal  $\alpha$ -synuclein were no different in saline (N = 6) vs. GM1-treated animals (N = 6), suggesting no influence of GM1 on A53T  $\alpha$ -synuclein transduction or transport to the striatum. Representative Wes Western blots are shown after cropping (full length images of blots are presented as Supplementary Fig. 2. (C) Double label immunofluorescence 1 week after AAV-A53T  $\alpha$ -synuclein injection showed no differences between saline & GM1-treated animals in  $\alpha$ -synuclein accumulation (green) in TH+ neurons (red) in the SNc. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31182727>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: beta-Actin Antibody [NB600-503] - Anti-hnRNP A1 antibodies alter protein levels as measured by Western blot. SK-N-SH cells were cultured & treated with anti-hnRNP A1 antibodies or control IgG. Following a 48 hour incubation, cells were lysed & protein lysate was run on 10% Tris-glycine gels for Western blot analysis & probed for Beta-actin (A) or GAPDH (B)) (control), hnRNP A1, SPG4, SPG7, & SPG20. Results revealed that there was a marked reduction of SPG 4 & SPG 7 protein levels in anti-hnRNP A1 antibody compared to control isotype IgG treated cells. There was a variable response to hnRNP A1 protein & a modest reduction of SPG 20. Parentheses show relative percent reduction of signal comparing anti-hnRNP A1 antibody to control isotype IgG treatment of cells. (L=lysate, IgG=control isotype IgG, A1=anti-hnRNP A1-M9 antibody treatment of cells). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/27375925>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Anderson T, Sharma S, Kelberman MA, Ware C et Al. Obesity during preclinical Alzheimer's disease development exacerbates brain metabolic decline J Neurochem 2023-06-30 [PMID: 37391269]

Davis EA, Wald HS, Suarez AN, Zubcevic J et Al. Ghrelin Signaling Affects Feeding Behavior, Metabolism, and Memory through the Vagus Nerve Curr Biol 2020-09-18 [PMID: 32946754]

Zhou Y, Li ZL, Ding L, Zhang XJ et Al. Long noncoding RNA SNHG5 promotes podocyte injury via the microRNA-26a-5p/TRPC6 pathway in diabetic nephropathy J Biol Chem 2022-10-18 [PMID: 36257404]

Li J, Jeong SY, Xiong B et Al. Repurposing pyridoxamine for therapeutic intervention of intravascular cell-cell interactions in mouse models of sickle cell disease Haematologica 2019-10-31 [PMID: 33054081]

Bostanci A, Doganlar O., et Al. MELATONIN ENHANCES TEMOZOLOMIDE-INDUCED APOPTOSIS IN GLIOBLASTOMA AND NEUROBLASTOMA CELLS Exp Oncol 2024-10-13 [PMID: 39396175]

Md. Aejazur Rahman, Bridgette M. Cumming, Kelvin W. Addicott, Hayden T. Pacl, Shannon L. Russell, Kievershen Nargan, Threnesan Naidoo, Pratistadevi K. Ramdial, John H. Adamson, Rui Wang, Adrie J. C. Steyn Hydrogen sulfide dysregulates the immune response by suppressing central carbon metabolism to promote tuberculosis Proceedings of the National Academy of Sciences of the United States of America 2020-03-24 [PMID: 32139610]

Mueller, J;van Muilekom, DR;Ehlers, J;Suhr, M;Hornburg, SC;Bang, C;Wilkes, M;Schultheiß, T;Maser, E;Rebl, A;Goldammer, T;Seibel, H;Schulz, C; Dietary Chlorella vulgaris supplementation modulates health, microbiota and the response to oxidative stress of Atlantic salmon Scientific reports 2024-10-10 [PMID: 39389986]

E Aladowicz, L Granieri, F Marocchi, S Punzi, G Giardina, PF Ferrucci, G Mazzarol, M Capra, G Viale, S Confalonie, S Gandini, F Lotti, L Lanfrancon ShcD Binds DOCK4, Promotes Ameboid Motility and Metastasis Dissemination, Predicting Poor Prognosis in Melanoma Cancers (Basel), 2020-11-13;12(11):. 2020-11-13 [PMID: 33202906]

V. F. E. D. Smolders, C. Rodríguez, I. Blanco, R. Szulcek, Wim Timens, L. Piccari, Y. Roger, X. Hu, Constanza Morén, C. Bonjoch, L. Sebastián, M. Castellà, J. Osorio, V. I. Peinado, Harm Jan Bogaard, P. H. A. Quax, M. Cascante, J. A. Barberà, O. Tura-Ceide Metabolic profile in endothelial cells of chronic thromboembolic pulmonary hypertension and pulmonary arterial hypertension Scientific Reports 2022-02-10 [PMID: 35145193]

Shastri S, Shinde T, Perera AP et al. Idebenone Protects against Spontaneous Chronic Murine Colitis by Alleviating Endoplasmic Reticulum Stress and Inflammatory Response Biomedicines 2020-09-28 [PMID: 32998266]

Anna Miyazaki, Yasukazu Kanai, Keita Wakamori, Serina Mizuguchi, Mikiya Futatsugi, Fuko Hirano, Naoya Kondo, Takashi Temma Synthesis and evaluation of [ 18 F]FBNAF, a STAT3-targeting probe, for PET imaging of tumor microenvironment EJNMMI Radiopharmacy and Chemistry 2024-06-04 [PMID: 38834900]

Kirkpatrick LT, Gómez JFM, Beline M et al. Muscle of dark and normal beef differs metabolically Meat Science 2023-09-01 [PMID: 37778129] (WB, Bovine)

More publications at <http://www.novusbio.com/NB600-503>



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### Products Related to NB600-503

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NB800-PC1	HeLa Whole Cell Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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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