Product Datasheet

Sirtuin 1/SIRT1 Antibody (1F3) - BSA Free
NBP1-51641

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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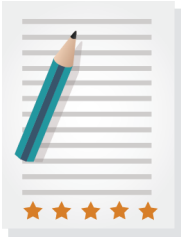
Publications: 10

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-51641

Updated 9/9/2025 v.20.1



NBP1-51641

Sirtuin 1/SIRT1 Antibody (1F3) - BSA Free

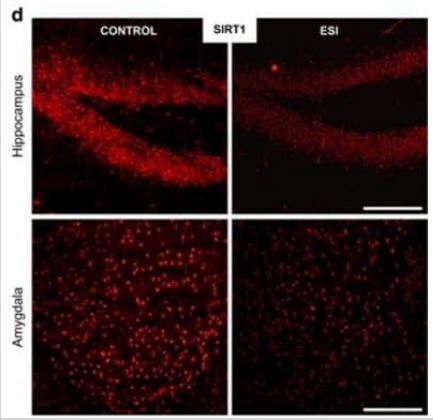
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1F3
Preservative	0.02% Sodium Azide
Isotype	IgG1
Purity	Ammonium sulfate precipitation
Buffer	PBS
Target Molecular Weight	120 kDa

Product Description	
Description	Novus Biologicals Mouse Sirtuin 1/SIRT1 Antibody (1F3) - BSA Free (NBP1-51641) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow and ICC/IF. Anti-Sirtuin 1/SIRT1 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	23411
Gene Symbol	SIRT1
Species	Human, Mouse, Rat, Primate, Rabbit
Reactivity Notes	Use in Rabbit reported in scientific literature (PMID:32179074).
Immunogen	Purified recombinant fragment of human SIRT1 (amino acids: 265-452) expressed in E. coli. [UniProt# Q96EB6]

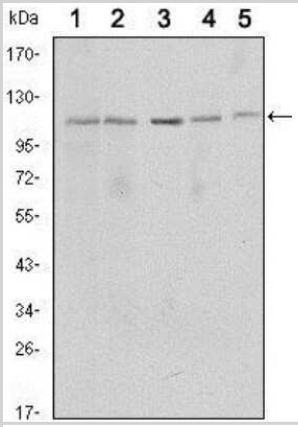
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry Free-Floating
Recommended Dilutions	Western Blot 1:500-1:2000, Flow Cytometry 1 ug per million cells, ELISA 1:10000, Immunohistochemistry 1:200-1:1000, Immunocytochemistry/ Immunofluorescence 1:10-1:1000, Immunohistochemistry-Paraffin 1:200-1:1000, Flow (Intracellular), Immunohistochemistry Free-Floating reported in scientific literature (PMID 26327687)

Images

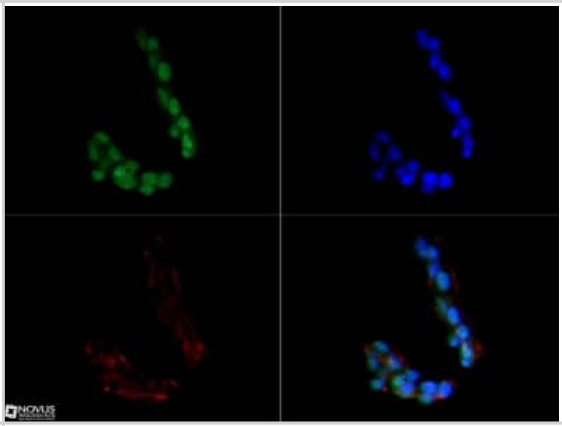
Immunohistochemistry: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - Early social isolation (ESI) induces long-term changes in sirtuin1 (SIRT) mRNA expression in the mouse brain and blood and reduces the SIRT1 protein level in different brain regions. Confocal images from the hippocampus and basolateral amygdala of control and ESI mice reacted with SIRT1 antibody. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/tp2015125) licensed under a CC-BY license.



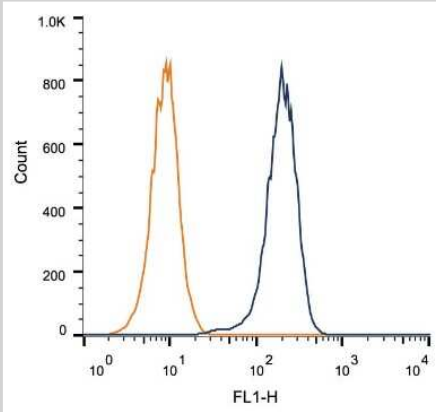
Western Blot: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - Western blot analysis using SIRT1 mouse mAb against MCF-7 (1), Jurkat (2), Hela (3), HEK293 (4) and A549 (5) cell lysates.



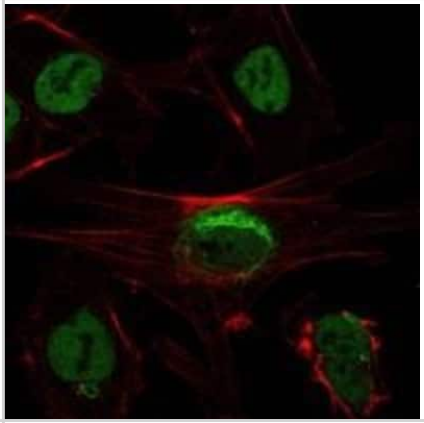
Immunocytochemistry/Immunofluorescence: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - SIRT1 antibody was tested at 1:10 in Ntera2 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red). Image objective 40x.



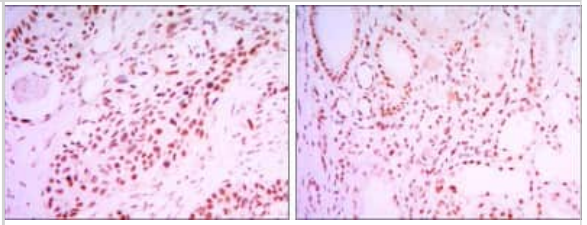
Flow Cytometry: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - Intracellular flow cytometric staining of 1 x 10^6 HEK-293 cells using SIRT1 antibody (dark blue). Isotype control shown in orange. An antibody concentration of 1 ug/1x10^6 cells was used.



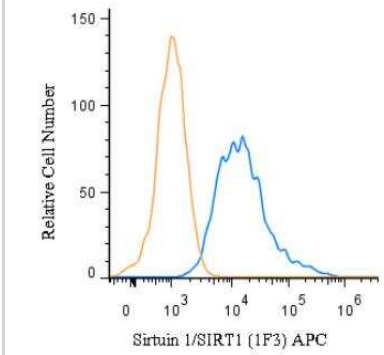
Immunocytochemistry/Immunofluorescence: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - Analysis of NTERA-2 cells using SIRT1 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



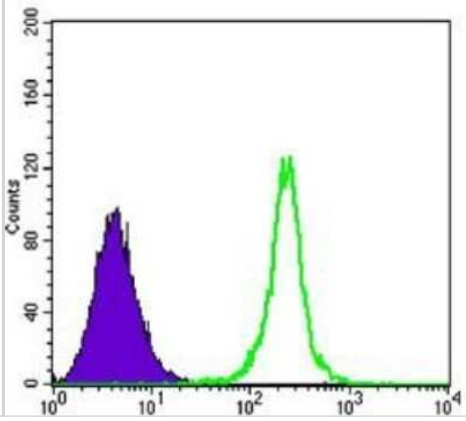
Immunohistochemistry-Paraffin: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and kidney cancer tissues (right) using SIRT1 mouse mAb with DAB staining.



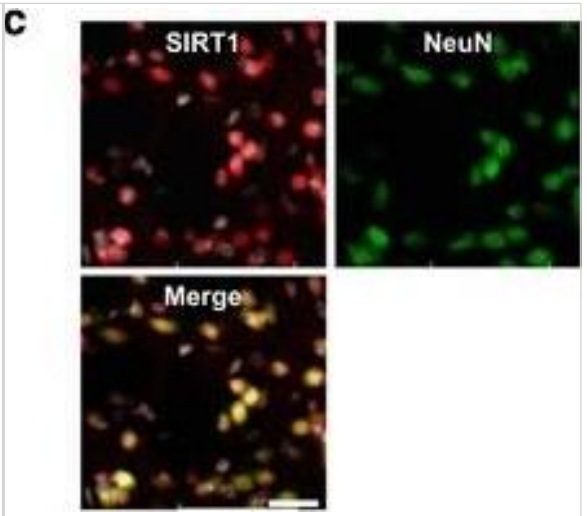
Flow (Intracellular): Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - An intracellular stain was performed on RAW 246.7 cells with Sirtuin 1/SIRT1 Antibody (1F3) NBP1-51641APC (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Allophycocyanin.



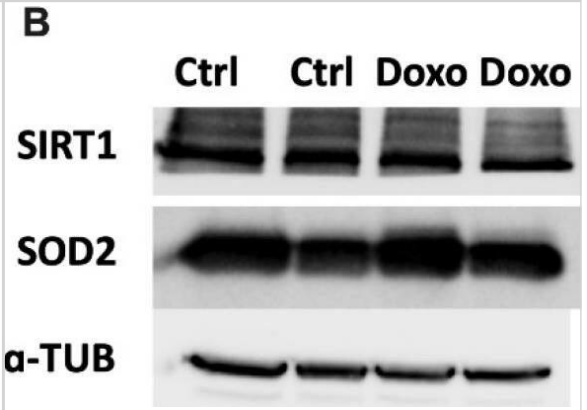
Flow Cytometry: Sirtuin 1/SIRT1 Antibody (1F3) [NBP1-51641] - Flow cytometric analysis of K562 cells using SIRT1 mouse mAb (green) and negative control (purple).



Immunocytochemistry/ Immunofluorescence: Sirtuin 1/SIRT1 Antibody (1F3) - BSA Free [NBP1-51641] - Early social isolation (ESI) induces long-term changes in sirtuin1 (SIRT) mRNA expression in the mouse brain & blood & reduces the SIRT1 protein level in different brain regions. (a) The mRNA expression levels (relative expression levels=fold changes over control, normalized to PGK1 & TBP (Tata Binding Protein) genes) of SIRT1 & SIRT6 were significantly decreased in the brain of ESI compared with control mice. (b) In peripheral blood mononuclear cells (PBMCs) of ESI-treated mice, the expression level of SIRT1 mRNA was downregulated. ESI, n=9 (male (M)=6, female (F)=3); Control, n=7 (M=4, F=3) ***P<0.001; *P<0.05. (c) Confocal images showing SIRT1 (red) & NeuN (green) immunostaining plus 4,6-diamidino-2-phenylindole (DAPI) counterstaining (gray) in the brain of control mice. SIRT1 (red) colocalizes both with the neuronal marker NeuN (green) & with DAPI (gray). (d) Confocal images from the hippocampus & basolateral amygdala of control & ESI mice reacted with SIRT1 antibody. (e) Densitometric analysis of SIRT1 immunoreactivity in the motor cortex, striatum, hippocampus & basolateral amygdala revealed a significant reduction of SIRT1 immunoreactivity in ESI compared with control mice. The F/A ratio defines the mean fluorescence of individual samples (F) normalized to total surface (A). ESI, n=5; Control, n=5. ***P<0.001. Scale bars: (d) 100 µm; 25 µm. Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/tp2015125), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Effects of Doxo stimulation on oxidative stress markers in hAC. (A) Gene expression of iNOS, NOX2, and NOX4 as well as CAT, SIRT1, SOD1, and SOD2 after Doxo stimulation for 10 d. (B) Exemplary western blot analysis of SIRT1 and SOD2 after Doxo stimulation (n = 2); a-TUB = alpha tubulin. NO release into culture media of Doxo-treated hAC after 5 d and 10 d, respectively. (D) Representative images of DCFDA staining of unstimulated and Doxo-stimulated hAC after 7 d and corresponding quantification of the corrected total cell fluorescence (CTFC). (E) Exemplary co-staining of mitochondrial superoxide (MitoSOX; red) and cytoplasmic ROS (DCFDA; green) of unstimulated (Ctrlol) and Doxo-stimulated hAC after 7 d. Ctrl = unstimulated hAC. Data are presented as scatter plot with bars, mean with standard deviation; or box plots with median, whiskers min to max. Significant differences between groups are depicted as: **** p ≤ 0.0001; ** p ≤ 0.01. Statistical analysis: (A) One-way ANOVA, Sidak's multiple comparison; (C) multiple t-test; (D) paired t-test. Ctrl = control (unstimulated cells), rel. = relative. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35406671), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Jung JS, Volk C, Marga C et al. Adipose-Derived Stem/Stromal Cells Recapitulate Aging Biomarkers and Show Reduced Stem Cell Plasticity Affecting Their Adipogenic Differentiation Capacity Cellular Reprogramming 2019-08-01 [PMID: 31298565] (Immunohistochemistry Free-Floating, Mouse)

Sun F, Wang J, Meng L, Zhou Z et Al. AdipoRon promotes amyloid-? clearance through enhancing autophagy via nuclear GAPDH-induced sirtuin 1 activation in Alzheimer's disease Br J Pharmacol 2024-04-28 [PMID: 38679474]

Gao Y, Kamogashira T, Fujimoto C Et al. Pyrroloquinoline quinone (PQQ) protects mitochondrial function of HEI-OC1 cells under premature senescence NPJ Aging 2022-08-04 [PMID: 35927260]

Details:
Citation using the Alexa Fluor 647 version of this antibody.

Bansod S, Aslam Saifi M, Khurana A, Godugu C Nimbolide abrogates cerulein-induced chronic pancreatitis by modulating beta-catenin/Smad in a sirtuin-dependent way Pharmacol Res 2020-03-21 [PMID: 32194177]

Toma L, Barbalata T, Sanda G Et al. CRISPR/dCas9 Transcriptional Activation of Endogenous Apolipoprotein AI and Paraoxonase 1 in Enterocytes Alleviates Endothelial Cell Dysfunction Biomolecules 2021-11-25 [PMID: 34944413] (WB, Human)

Bansod S, Godugu C Nimbolide ameliorates pancreatic inflammation and apoptosis by modulating NF-kappa B/SIRT1 and apoptosis signaling in acute pancreatitis model International immunopharmacology 2020-12-09 [PMID: 33310297] (Mouse)

Xiao Y, Zhou L, Zhang T et al. Anti-fibrosis activity of quercetin attenuates rabbit tracheal stenosis via the TGF-beta/AKT/mTOR signaling pathway Life Sci. 2020-06-01 [PMID: 32179074] (WB, Rabbit, Human)

Kong H, Wang H, Zhuo Z et al. Inhibition of miR-181a-5p reduces astrocyte and microglia activation and oxidative stress by activating SIRT1 in immature rats with epilepsy Lab. Invest. 2020-05-27 [PMID: 32461588] (KD, WB, Rat)

Takata T, Sakasai-Sakai A, Takino JI, Takeuchi M Evidence for Toxic Advanced Glycation End-Products Generated in the Normal Rat Liver Nutrients 2019-07-16 [PMID: 31315223] (WB, Rat)

Lo Iacono L, Visco-Comandini F, Valzania A et al. Adversity in childhood and depression: linked through SIRT1. Transl Psychiatry 2015-09-02 [PMID: 26327687] (IHC-FrFl, Mouse)

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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