Product Datasheet

FOXO3 Antibody - BSA Free NB100-614

Unit Size: 100 ul

Store at 4C. Do not freeze.

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NB100-614

FOXO3 Antibody - BSA Free

Product Information	
Unit Size	100 ul
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	71.3 kDa
Product Description	
Host	Rabbit
Gene ID	2309
Gene Symbol	FOXO3
Species	Human, Mouse, Porcine
Reactivity Notes	Porcine reactivity reported in scientific literature (PMID:33147486)
Specificity/Sensitivity	NB100-614 is specific for human FOXO3a protein.
Immunogen	The immunogen recognized by this antibody maps to a region between residue 625 and the C-terminus (residue 673) of human Forkhead Box O3a using the numbering given in Swiss-Prot entry O43524 (GeneID 2309).
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:250 - 1:1000, Immunoprecipitation 2-5 ug/mg lysate, Immunohistochemistry-Paraffin 1:500 - 1:2000, Knockout Validated, Knockdown Validated
Application Notes	Epitope retrieval with Tris-EDTA pH 9.0 is recommended for FFPE tissue sections. FOXO3 antibody validated for ICC/IF, WB from verified customer reviews.

Images

Western Blot: FOXO3 Antibody [NB100-614] - Expression of FOXO increases in aging brain. Protein expression of Foxo1, Foxo3, and phospho-T24/32 Foxo1/3 in young (<3-month, n = 6), adult (3-18-month, n = 6), and old (18-20-month, n = 6) FVB/B6 mixed-strain mouse cerebellums is shown. Each dot represents individual animal. Error bars, mean +/- SEM. *p < .05; **p < .01; ***p < .005. Statistical significance was determined by unpaired t-test. Image collected and cropped by CiteAb from the following publication

(https://doi.wiley.com/10.1111/acel.12701), licensed under a CC-BY license.





Immunocytochemistry/Immunofluorescence: FOXO3 Antibody [NB100-614] - Analysis of FOXO3 in human B cell lymphoma using anti-FOXO3 antibody .Image submitted by a verified customer review. Immunohistochemistry-Paraffin: FOXO3 Antibody [NB100-614] -Sample: FFPE section of human ovarian carcinoma (left) and mouse renal cell carcinoma (right). Antibody: Affinity purified rabbit anti-FOXO3a used at a dilution of 1:1,000 (1ug/ml). Detection: DAB Western Blot: FOXO3 Antibody [NB100-614] - Detection of Human and kDa 460-Mouse FOXO3a by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa, 293T, Jurkat, mouse TCMK-1, and mouse NIH3T3 cells. 268-Antibodies: Affinity purified rabbit anti-FOXO3a antibody NB100-614 171used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an 117 exposure time of 3 minutes. FOXO3a 71 55 41-31 50 50 293T Jurkat TCMK 3T3 Western Blot: FOXO3 Antibody [NB100-614] - FOXO3 Protein expression levels both control group and exercise group for skeletal muscles. Image submitted by a verified customer review *{Mouse WB}* ing : Bolt TM 10% get, 100 Voit for 2 ho PVDF membrane, 30 Vol for 1 hour







Western Blot: FOXO3 Antibody [NB100-614] - Expression of FOXO increases in aging brain. (a) XY plots of FOXO1 or FOXO3 mRNA expression within the noted brain regions vs. age of the subjects at time of death. (b) Pearson correlation coefficients (r) & p_values for the correlation of FOXO1 or FOXO3 mRNA expression in various regions of the human brain with the age. (c) The mRNA expressions of FOXO1 & FOXO3 were measured in human cerebellums (n = 33). Blue & green dots indicate samples used for WB in (d). The mRNA (e) & protein (f) expression of Foxo1, Foxo3, & phospho T24/32 Foxo1/3 in young (<3 \square month, n = 6), adult (3 \square 18 \square month, n = 6), & old (18–20 \square month, n = 6) FVB/B6 mixed strain mouse cerebellums is shown. Each dot represents individual animal. Error bars, mean ± SEM. *p < .05; **p < .01; ***p < .005. Statistical significance was determined by unpaired to test. (g) FOXO1 IHC analysis of brain sections of WT & Foxo 1/3/4 KO mice. Residual FOXO1 immunoreactivity in KO mice is visible in endothelial cells (inset). Scale bar = 200 μ m. (h) RT gPCR results for Foxo1 & Foxo3 mRNA. Empty bars represent WT, & colored bars represent KO tissues (n = 4). (i) Representative Western blotting results. Foxo1 or Foxo1/3 specific knockouts (1KO or 1/3KO) selectively lost targeted isoforms. CBM—cerebellum, STR—striatum, SCD—spinal cord, CTX—cortex, BST—brain stem, MDB—midbrain, HPC—hippocampus Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29178390), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

Western Blot: FOXO3 Antibody [NB100-614] - Expression of FOXO increases in aging brain. (a) XY plots of FOXO1 or FOXO3 mRNA expression within the noted brain regions vs. age of the subjects at time of death. (b) Pearson correlation coefficients (r) & p values for the correlation of FOXO1 or FOXO3 mRNA expression in various regions of the human brain with the age. (c) The mRNA expressions of FOXO1 & FOXO3 were measured in human cerebellums (n = 33). Blue & green dots indicate samples used for WB in (d). The mRNA (e) & protein (f) expression of Foxo1, Foxo3, & phospho T24/32 Foxo1/3 in young (<3 month, n = 6), adult (3 18 month, n = 6), & old (18–20 month, n = 6) FVB/B6 mixed strain mouse cerebellums is shown. Each dot represents individual animal. Error bars, mean ± SEM. *p < .05; **p < .01; ***p < .005. Statistical significance was determined by unpaired t test. (g) FOXO1 IHC analysis of brain sections of WT & Foxo 1/3/4 KO mice. Residual FOXO1 immunoreactivity in KO mice is visible in endothelial cells (inset). Scale bar = 200 μ m. (h) RT \Box gPCR results for Foxo1 & Foxo3 mRNA. Empty bars represent WT, & colored bars represent KO tissues (n = 4). (i) Representative Western blotting results. Foxo1 or Foxo1/3 specific knockouts (1KO or 1/3KO) selectively lost targeted isoforms. CBM—cerebellum, STR—striatum, SCD—spinal cord, CTX—cortex, BST—brain stem, MDB—midbrain, HPC—hippocampus Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/29178390), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

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Publications

Gui T, Fleming C, Manzato C et al. Targeted perturbation of signaling-driven condensates Molecular cell 2023-11-16 [PMID: 37977121] (ICC/IF, Human)

Ghosh S, Singh R, Vanwinkle ZM et al. Microbial metabolite restricts 5-fluorouracil-resistant colonic tumor progression by sensitizing drug transporters via regulation of FOXO3-FOXM1 axis Theranostics 2022-07-18 [PMID: 35910798] (WB, Human)

Details:

Dilutions: 1:500

Hornsveld M, Feringa FM, Krenning L, et al. A FOXO-dependent replication checkpoint restricts proliferation of damaged cells Cell reports 2021-01-26 [PMID: 33503422] (WB, ICC/IF, Human)

Ludikhuize MC, Meerlo M, Gallego MP et al. Mitochondria Define Intestinal Stem Cell Differentiation Downstream of a FOXO/Notch Axis BMC Neurosci 2020-10-31 [PMID: 33147486] (WB, Porcine)

Oh H, Paik J. Genetic Ablation of FOXO in Mice to Investigate Its Physiological Role. Methods Mol. Biol. 1905-07-11 [PMID: 30414159] (Mouse)

Srivastava T, Diba P, Dean JM et al. A TLR/AKT/FoxO3 immune tolerance-like pathway disrupts the repair capacity of oligodendrocyte progenitors. J. Clin. Invest. 2018-04-16 [PMID: 29664021] (IF/IHC, Mouse)

Hwang I, Oh H, Santo E et al. FOXO protects against age-progressive axonal degeneration. Aging Cell 2017-11-26 [PMID: 29178390] (WB, Mouse)

Lin CW Jan MS Kuo JH. Exploring MicroRNA Expression Profiles Related to the mTOR Signaling Pathway in Mouse Embryonic Fibroblast Cells Treated with Polyethylenimine. Mol Pharm. [PMID: 26158199]





Novus Biologicals USA

10730 E. Briarwood Avenue Centennial, CO 80112 USA Phone: 303.730.1950 Toll Free: 1.888.506.6887 Fax: 303.730.1966 nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave Toronto, ON M8Z 4E6 Canada Phone: 905.827.6400 Toll Free: 855.668.8722 Fax: 905.827.6402 canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB, United Kingdom Phone: (44) (0) 1235 529449 Free Phone: 0800 37 34 15 Fax: (44) (0) 1235 533420 info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com Technical Support: nb-technical@biotechne.com Orders: nb-customerservice@bio-techne.com General: novus@novusbio.com

Products Related to NB100-614

NBP2-24891	Rabbit IgG Isotype Control
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NBL1-10814	FOXO3 Overexpression Lysate

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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