

Product Datasheet

TXNIP Antibody (JY2) - Azide and BSA Free NBP1-54578

Unit Size: 0.1 mg

Store at -20C. Avoid freeze-thaw cycles.

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NBP1-54578

TXNIP Antibody (JY2) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	JY2
Preservative	No Preservative
Isotype	IgG1
Purity	Protein A or G purified
Buffer	PBS

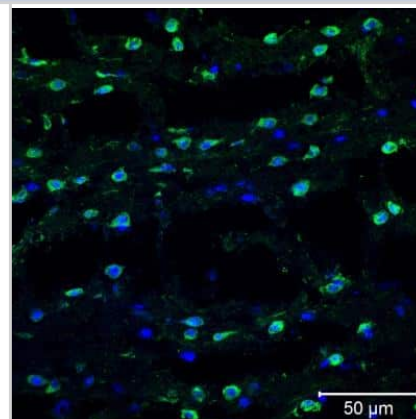
Product Description	
Description	Novus Biologicals Knockout (KO) Validated Mouse TXNIP Antibody (JY2) - Azide and BSA Free (NBP1-54578) is a monoclonal antibody validated for use in IHC, WB, Flow, Simple Western and IP. Anti-TXNIP Antibody: Cited in 33 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	10628
Gene Symbol	TXNIP
Species	Human, Mouse, Rat
Reactivity Notes	Use in Mouse reported in scientific literature (PMID:34576095). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Immunogen	Human recombinant TXNIP

Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Flow Cytometry, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation, Proximity Ligation Assay, CyTOF-ready, Knockout Validated
Recommended Dilutions	Western Blot 1 ug/ml, Simple Western 1:500, Flow Cytometry 2-5 ug/0.1x10 ⁶ cells, Immunohistochemistry, Immunoprecipitation 2ug/200ul of cell extract from 5x10 ⁶ cells, Immunohistochemistry-Paraffin 1:100-1:500, Immunohistochemistry-Frozen reported by customer review, Proximity Ligation Assay, CyTOF-ready, Knockout Validated reported in scientific literature (Brocker et al)

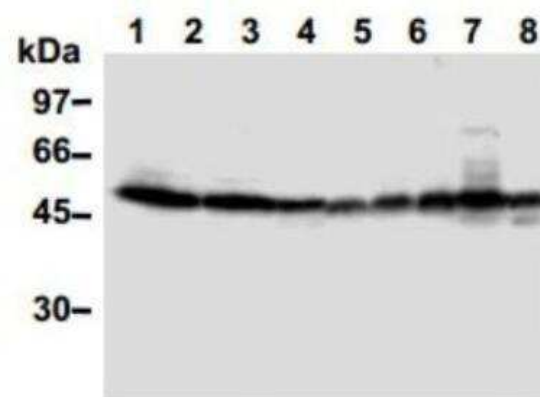


Images

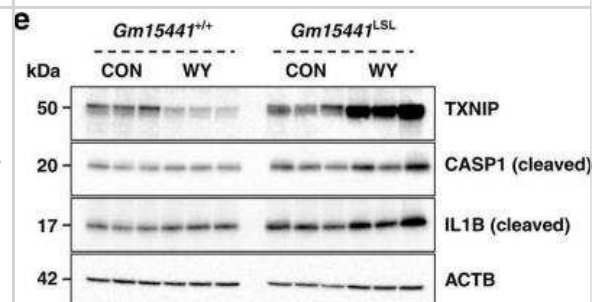
Immunohistochemistry-Frozen: TXNIP Antibody (JY2) [NBP1-54578] - TXNIP in mouse brain. Antibody dilution: 1:100, incubated overnight in 5%BSA + 0.2% Triton X 100. Image from verified customer review.



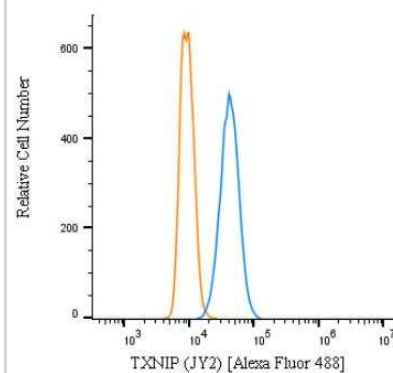
Western Blot: TXNIP Antibody (JY2) [NBP1-54578] - TXNIP expression in Raji (1), K562 (2), KG1 (3), MRC5 (4), IC2Tr (5), HEL (6), P19 (7) and WR19L (8).



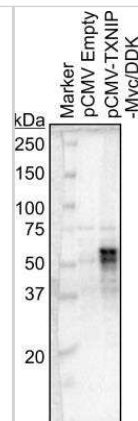
Western Blot: TXNIP Antibody (JY2) - Azide and BSA Free [NBP1-54578] - Analysis of TXNIP (NBP1-54578), ACTB, CASP1 (cleaved), and IL1B (cleaved) protein in livers from mice treated with WY-14643 for 48 h. Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/33203882/](https://pubmed.ncbi.nlm.nih.gov/33203882/)) licensed under a CC-BY license.



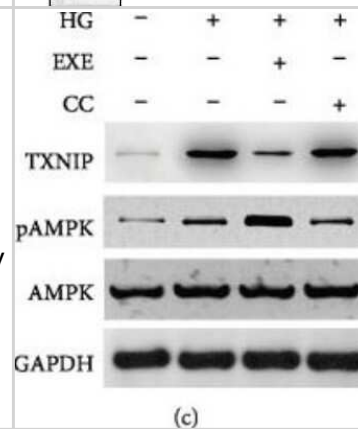
Flow Cytometry: TXNIP Antibody (JY2) - Azide and BSA Free [NBP1-54578] - An intracellular stain was performed on THP-1 cells with TXNIP Antibody (JY2) NBP1-54578AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



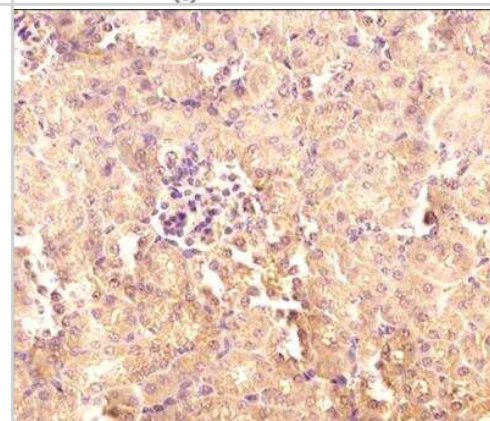
Western Blot: TXNIP Antibody (JY2) [NBP1-54578] - Hepa1 lysates probed with anti-TXNIP (JY2) at 1:2K. Cells were transfected with either empty vector or mouse TXNIP expression vector (MYC/DDK tagged). 30ug protein per lane. Image from verified customer review.



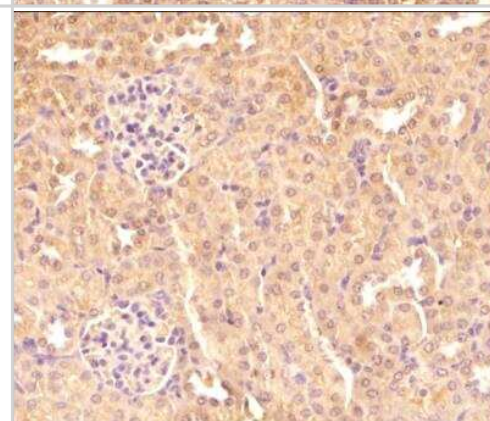
Western Blot: TXNIP Antibody (JY2) [NBP1-54578] - AMPK mediates anti-pyrototic effects of Exendin-4. (a) ROS determination by FACS. The left arrow indicated the ROS-negative population and the right pointed the positive. (b) Transcription activity of TXNIP in cardiomyocytes. (c) Western blot. (d) RNA silencing of TXNIP in cardiomyocytes. (e) IL-1 ELISA with TXNIP RNAi. (f) Caspase-1 activity assay with TXNIP RNAi. (g) Quantification of pAMPK/AMPK with CC treatment. (h) IL-1 ELISA with CC treatment. (i) Caspase-1 activity assay with CC treatment. Values are the mean SEM of 3 samples per group. 0.05, 0.01, 0.005, and 0.001. Exendin-4 Protects against Hyperglycemia-Induced Cardiomyocyte Pyroptosis via the AMPK-TXNIP Pathway. *J Diabetes Res* (2019)



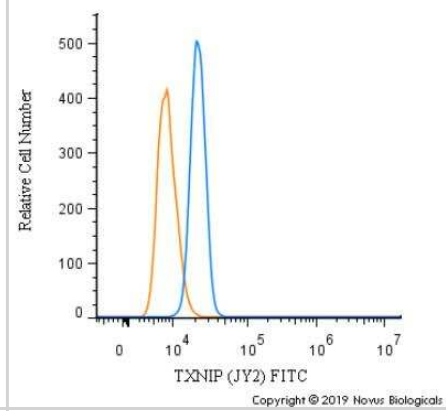
Immunohistochemistry-Paraffin: TXNIP Antibody (JY2) [NBP1-54578] - Formalin fixed and paraffin embedded tissue section of mouse kidney using TXNIP antibody (clone JY2) at 1:250 dilution. The signal was developed using HRP-conjugated secondary antibody and DAB reagent which followed counterstaining of the cell nuclei with hematoxylin. This TXNIP antibody generated a diffused cytoplasmic signal in the cells of various tubules and glomeruli.



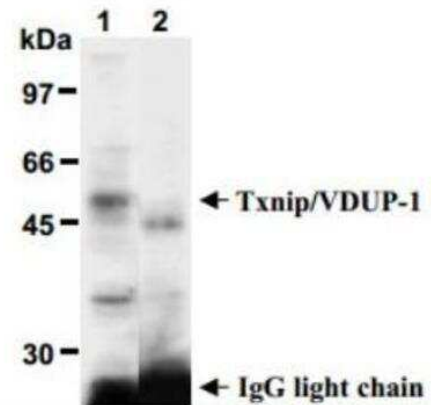
Immunohistochemistry-Paraffin: TXNIP Antibody (JY2) [NBP1-54578] - Formalin fixed and paraffin embedded tissue section of mouse kidney using TXNIP antibody (clone JY2) at 1:100 dilution. The signal was developed using HRP-conjugated secondary antibody and DAB reagent which followed counterstaining of the cell nuclei with hematoxylin. This TXNIP antibody generated a diffused cytoplasmic signal in the cells of various tubules with negligible staining in glomeruli.



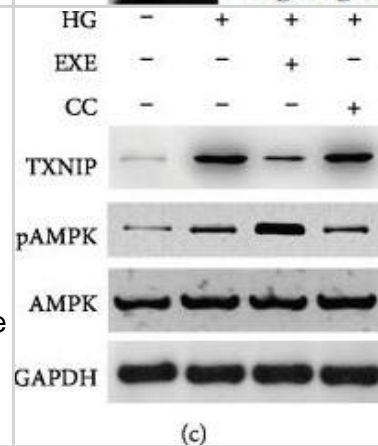
Flow Cytometry: TXNIP Antibody (JY2) [NBP1-54578] - An intracellular stain was performed on RH-30 cells with TXNIP (JY2) Antibody NBP1-54578F (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to FITC.



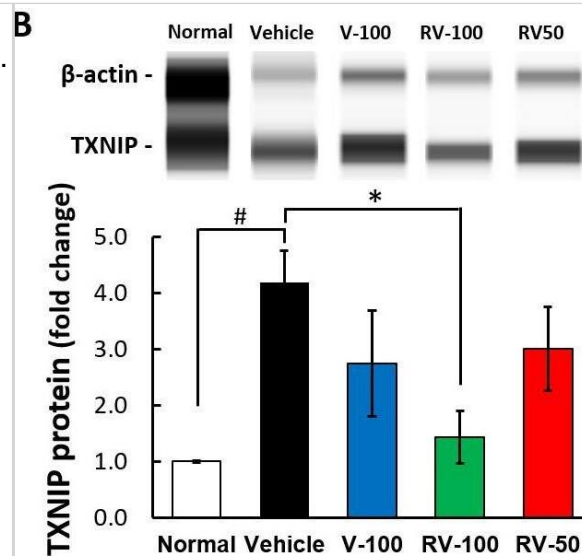
Immunoprecipitation: TXNIP Antibody (JY2) [NBP1-54578] - Txnip/VDUP1 from Raji with NBP1-54578 (1) or mouse IgG1 (2).



Western Blot: TXNIP Antibody (JY2) - Azide and BSA Free [NBP1-54578] - AMPK mediates anti-pyrototic effects of Exendin-4. (a) ROS determination by FACS. The left arrow indicated the ROS-negative population & the right pointed the positive. (b) Transcription activity of TXNIP in cardiomyocytes. (c) Western blot. (d) RNA silencing of TXNIP in cardiomyocytes. (e) IL-1 β ELISA with TXNIP RNAi. (f) Caspase-1 activity assay with TXNIP RNAi. (g) Quantification of pAMPK/AMPK with CC treatment. (h) IL-1 β ELISA with CC treatment. (i) Caspase-1 activity assay with CC treatment. Values are the mean \pm SEM of 3 samples per group. \square $p < 0.05$, $\square\square$ $p < 0.01$, $\square\square\square$ $p < 0.005$, & $\square\square\square\square$ $p < 0.001$. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31886288>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Proinflammatory cytokine (IL-6) and TXNIP expression and TUNEL assay for STZ-induced mice treated with Verapamil (V) and R-Vera (RV). (A) STZ-induced mice administered 100 mg/kg/day racemic or R-Vera exhibited significantly reduced serum IL-6 expression compared to vehicle mice whereas those administered 50 mg/kg/day R-Vera did not. ** $P < 0.01$ indicates significant difference from vehicle using one-way ANOVA. $N = 8$ in each group. (B) STZ-induced mice showed highly upregulated islet tissue TXNIP compared to normal C57BL/6J mice. TXNIP was downregulated after racemic or R-Vera administration compared to vehicle. # $P < 0.05$ indicated significant difference between normal and vehicle; * $P < 0.05$ indicated significant difference to vehicle using one-way ANOVA. $N = 8$ in each group. (C) β -cell apoptosis assessed using TUNEL staining. Deep staining spots in images are apoptotic β -cells (200 \times). (D) TUNEL-positive cell counts show that STZ-induced mice administered 100 mg/kg/day R-Vera had significantly reduce β -cell apoptosis. * $P < 0.05$ indicated a significant difference between vehicle and RV-100 using one-way ANOVA. The sample numbers of 5, 7, 5, and 9 indicate the section numbers from the Vehicle, V-100, RV-100, and RV-50 groups, respectively (rather than the number of mice). Each data point represents the percentage of TUNEL-positive cells per slide in each group. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/34358247>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Cao X, Liu K, Yuan J et al. Transcriptional regulation of Rankl by Txnip-Ecd in aging and diabetic related osteoporosis. *Journal of advanced research* 2025-01-16 [PMID: 39826612]

Ismael S, Nasoohi S, Yoo A et al. Verapamil as an Adjunct Therapy to Reduce tPA Toxicity in Hyperglycemic Stroke: Implication of TXNIP/NLRP3 Inflammasome *Molecular Neurobiology* 2021-08-01 [PMID: 33847912]

Ismael S, Nasoohi S, Yoo A et al. Tissue Plasminogen Activator Promotes TXNIP-NLRP3 Inflammasome Activation after Hyperglycemic Stroke in Mice *Molecular Neurobiology* 2020-06-01 [PMID: 32172516]

Lim JO, Lee SJ, Kim WI et al. Melatonin Alleviates Silica Nanoparticle-Induced Lung Inflammation via Thioredoxin-Interacting Protein Downregulation *Antioxidants (Basel)* 2021-11-04 [PMID: 34829636]

Kim, J;Lim, J;Yoo, ID;Park, S;Moon, JS; TXNIP contributes to induction of pro-inflammatory phenotype and caspase-3 activation in astrocytes during Alzheimer's diseases *Redox biology* 2023-05-06 [PMID: 37172394] (Immunohistochemistry-Paraffin, Human)

Singh G Role of Glucose-induced Transcription Factor Signalling and Mitochondrial Epigenetics in Stress Tolerant Wood Frog, *Rana sylvatica* Thesis 2022-12-16 (Immunoprecipitation, Western Blot, Amphibian)

Details:
Wood Frog

Singh G, Storey KB TXNIP shuttling - a key molecular link in regulating inflammation and mitochondrial dysfunction in freeze tolerant wood frogs *Gene* 2023-01-07 [PMID: 36627089] (WB, Amphibian)

Patrick Devlin Inflammatory Response Following Hemorrhagic Stroke: The Role of Cytokines University of Tennessee Health Science Center 2022-11-07 (WB, Mouse)

Ismael S, Patrick D, Salman M et al. Verapamil inhibits TXNIP-NLRP3 inflammasome activation and preserves functional recovery after intracerebral hemorrhage in mice *Neurochemistry international* 2022-10-14 [PMID: 36244583] (WB, IF/IHC, Mouse)

Details:
Dilution used in WB 1:1000, in IHC 1:100

Girdhar K, Thakur S, Gaur P et al. Design, synthesis, and biological evaluation of a small molecule oral agonist of the glucagon-like-peptide-1 receptor *Journal of Biological Chemistry* 2022-04-01 [PMID: 35378127] (WB, Mouse)

Tsubaki H, Mendsaikhan A, Buyandelger U et al. Localization of Thioredoxin-Interacting Protein in Aging and Alzheimer's Disease Brains *NeuroSci* 2022-03-31 (IF/IHC, WB, Human)

Salman M, Ismael S, Lexiao L Et al. Acute Hyperglycemia Exacerbates Hemorrhagic Transformation after Embolic Stroke and Reperfusion with tPA: A Possible Role of TXNIP-NLRP3 Inflammasome *Journal of stroke and cerebrovascular diseases : the official journal of National Stroke Association* 2021-11-27 [PMID: 34847489] (WB, Mouse)

More publications at <http://www.novusbio.com/NBP1-54578>



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Products Related to NBP1-54578

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]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

Limitations

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