

Product Datasheet

TRAP1 Antibody - BSA Free NBP2-47597

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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NBP2-47597

TRAP1 Antibody - BSA Free

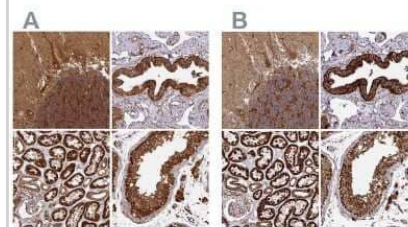
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Description	Novus Biologicals Rabbit TRAP1 Antibody - BSA Free (NBP2-47597) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-TRAP1 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	10131
Gene Symbol	TRAP1
Species	Human
Immunogen	This antibody was developed against a recombinant protein corresponding to amino acids: AMKKKDTEVLFQFEQFDELTLHLREFDKKKLISVETDIVVDHYKEEFEDRSPA AECLSEKETEELMAWMRNVLGSRVTNVKVTLR

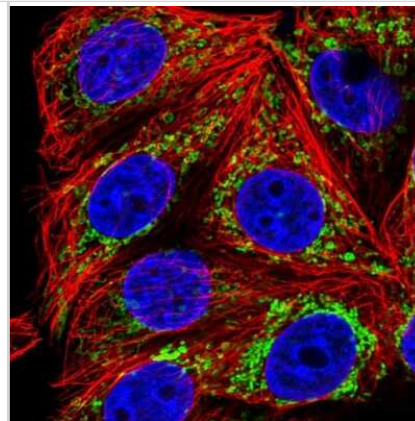
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:50 - 1:200, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:50 - 1:200
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100.

Images

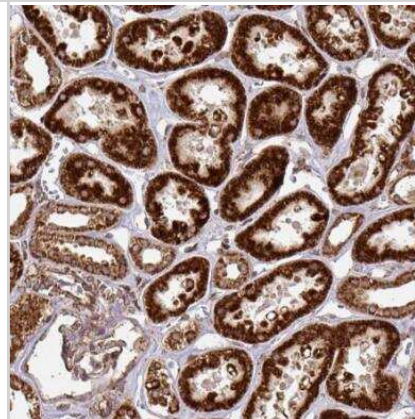
Immunohistochemistry-Paraffin: TRAP1 Antibody [NBP2-47597] - Staining of human cerebellum, fallopian tube, kidney and testis using Anti-TRAP1 antibody NBP2-47597 (A) shows similar protein distribution across tissues to independent antibody NBP2-47598 (B).



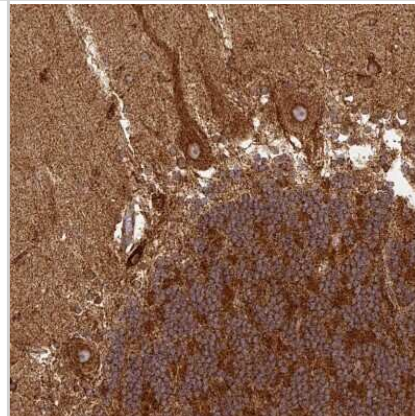
Immunocytochemistry/Immunofluorescence: TRAP1 Antibody [NBP2-47597] - Immunofluorescent staining of human cell line MCF7 shows localization to mitochondria.



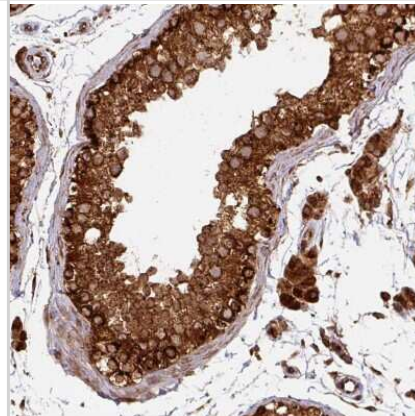
Immunohistochemistry-Paraffin: TRAP1 Antibody [NBP2-47597] - Staining of human kidney shows strong to very strong granular cytoplasmic positivity in cells in tubules.



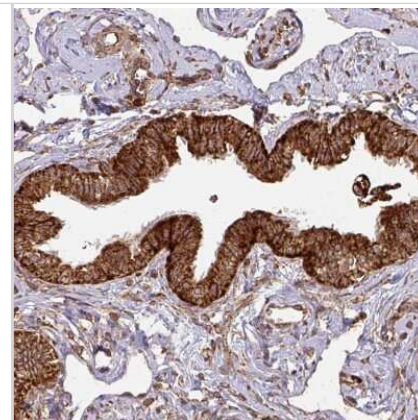
Immunohistochemistry-Paraffin: TRAP1 Antibody [NBP2-47597] - Staining of human cerebellum shows moderate to strong granular cytoplasmic positivity in Purkinje cells.



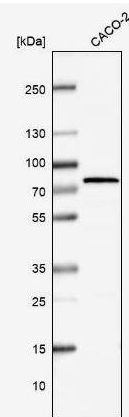
Immunohistochemistry-Paraffin: TRAP1 Antibody [NBP2-47597] - Staining of human testis shows moderate to strong granular cytoplasmic positivity in seminiferous ducts.



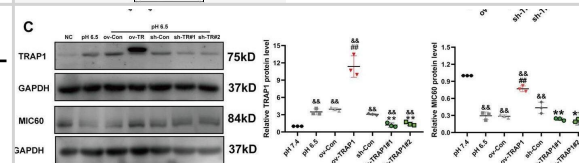
Immunohistochemistry-Paraffin: TRAP1 Antibody [NBP2-47597] - Staining of human fallopian tube shows strong to very strong granular cytoplasmic positivity in glandular cells.



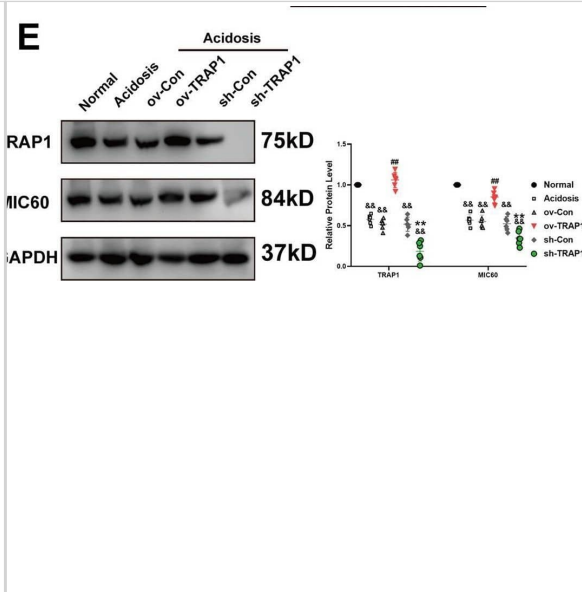
Western Blot: TRAP1 Antibody [NBP2-47597] - Analysis in human cell line CACO-2.



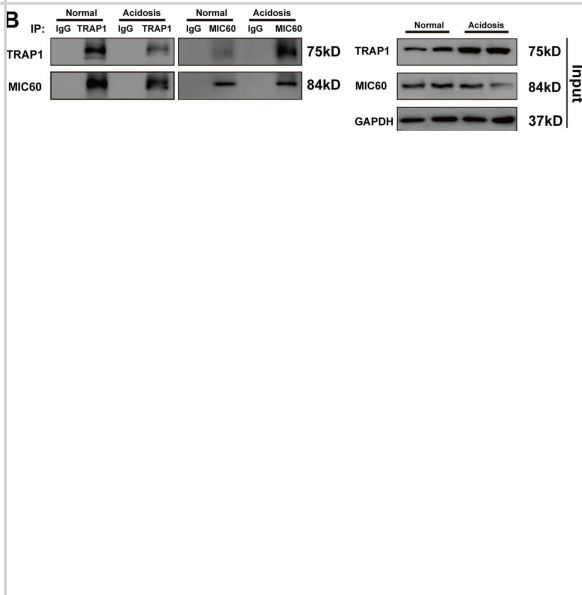
TRAP1 increased MIC60 protein levels of H9C2 cells via alleviating MIC60 ubiquitin-dependent degradation in extracellular acidosis. A, B RT-qPCR and western blot were used to determine the transfection efficiency of TRAP1 in H9C2 cells. C Western blot was used to detect TRAP1 or MIC60 protein levels of H9C2 cells. D, E Western blot was used to detect the degradation of MIC60 protein. F Western blot was used to detect whole cell lysate ubiquitination. G Western blot was used to detect MIC60 protein ubiquitination. CHX (cycloheximide, 20 μ M) was used to inhibit protein synthesis. MG132 (10 μ M) was used to inhibit proteasome. CQ (Chloroquine phosphate, 10 μ M) was used to inhibit lysosomes. Data were the means \pm SD from three independent experiments. Group comparisons were performed by one-way analysis of variance followed by Tukey's post hoc test. $\&\&P < 0.01$ vs. pH 7.4 group. $\#\#P < 0.01$ vs. ov-Con group. $*P < 0.05$ vs. 0 h, CQ or Con group. $**P < 0.01$ vs. sh-Con or 0 h group. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/34907169>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



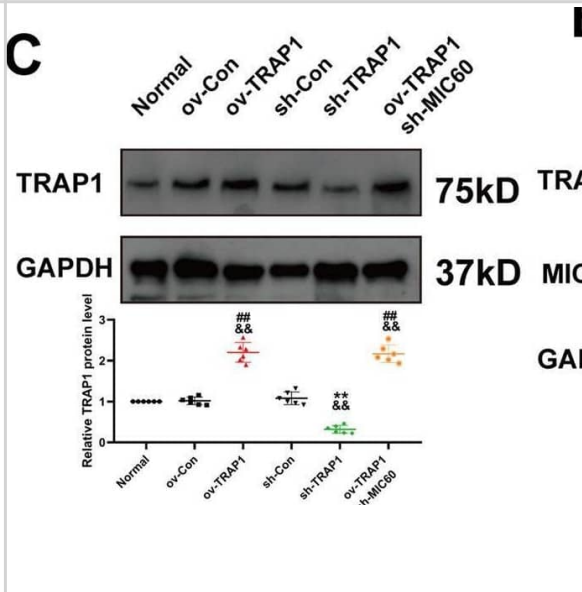
TRAP1 interacted with MIC60 and decreased MIC60 ubiquitination to increase MIC60 protein levels in rats' heart tissue in extracellular acidosis. A Detection of the colocalization of MIC60 (green) and TRAP1 (red) using confocal microscopy in rat's heart tissue. B Immunoblotting analysis of TRAP1 and MIC60 expression in a co-IP assay performed in protein lysate of rat's heart tissue with anti-TRAP1 or anti-MIC60 Magnetic beads, respectively. C–D Western blot was used to determine the transfection efficiency of TRAP1 (C) and MIC60 (D) in rats' heart tissue. E Western blotting was used to detect MIC60 protein levels regulated by TRAP1. F Western blot was used to detect MIC60 protein ubiquitination. Data were the means \pm SD from three independent experiments. Group comparisons were performed by one-way analysis of variance followed by Tukey's post hoc test. $\&P < 0.05$ vs. Normal group. $\#P < 0.05$ vs. ov-Con group. $\#\#P < 0.01$ vs. ov-Con group. $*P < 0.05$ vs. sh-Con group. $**P < 0.01$ vs. sh-Con group. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/34907169>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



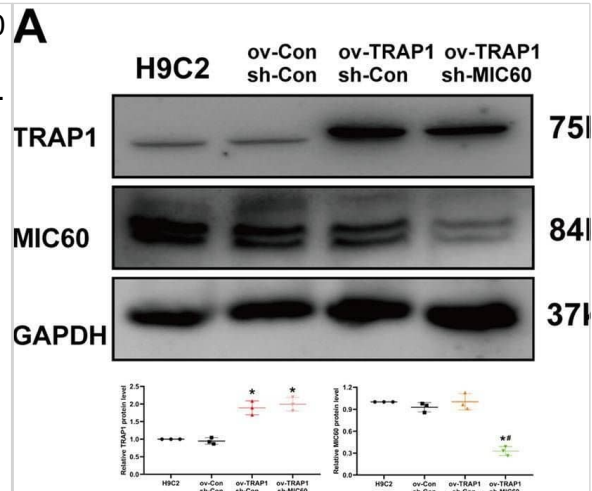
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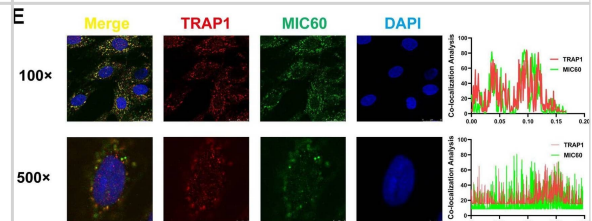
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TRAP1 protected mitochondrial cristae and function by increasing MIC60 protein levels in extracellular acidosis. A Western blot was used to determine the transfection efficiency of TRAP1 and MIC60 in H9C2 cells. B Methyl tetramethylrhodamine staining was used to detect mitochondrial membrane potential of H9C2 cells. C CCK8 assay was used to detect the cell viability of H9C2 cells. D ATP assay was used to detect ATP levels of H9C2 cells. E Transmission electron microscopy was used to detect the ultrastructure of mitochondria of H9C2 cells. Twenty-one images were obtained from three independent experiments for each group. The average cristae number in one mitochondrion (n = 30 mitochondria for each group randomly selected from 21 pictures) of each group was quantified. Data were the means \pm SD from three independent experiments. Group comparisons were performed by one-way analysis of variance followed by Tukey's post hoc test. *P < 0.05 vs. ov-Con/sh-Con group. #P < 0.05 vs. ov-TRAP1/sh-Con group. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/34907169>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



TRAP1 directly interacted with MIC60 in H9C2 cells. A Silver staining of TRAP1 immunoprecipitates. B LC-MS/MS of TRAP1 immunoprecipitates. C Representative fragmentation spectrum of the identified MIC60 peptides. D Immunoblotting analysis of TRAP1 and MIC60 expression in a co-IP assay performed in H9C2 cells with anti-TRAP1 or anti-MIC60 Magnetic beads, respectively. E Detection of the colocalization of MIC60 (green) and TRAP1 (red) using confocal microscopy in H9C2 cells. Nuclei were stained using DAPI (blue), (Scale bars, 25 μ m). Data were the means \pm SD from three independent experiments. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/34907169>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Zhang X, Cheng S, Li W et al. TRAP1 inhibits KANSL3 acetylation to alleviate mitochondrial dysfunction by promoting mitophagy in cardiomyocytes under diabetic conditions *Cell communication and signaling* : CCS 2025-10-02 [PMID: 41039555]

Zhang L, Luo Y, Lv L et al. TRAP1 inhibits MARCH5-mediated MIC60 degradation to alleviate mitochondrial dysfunction and apoptosis of cardiomyocytes under diabetic conditions *Cell death and differentiation* 2023-09-07 [PMID: 37679468]

Zhang L, Su N, Luo Y et al. TRAP1 inhibits MIC60 ubiquitination to mitigate the injury of cardiomyocytes and protect mitochondria in extracellular acidosis *Cell death discovery* 2021-12-14 [PMID: 34907169] (ICC/IF, Rat)



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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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