

# Product Datasheet

## RIPK1/RIP1 Antibody - BSA Free NBP1-77077

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

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**NBP1-77077**

RIPK1/RIP1 Antibody - BSA Free

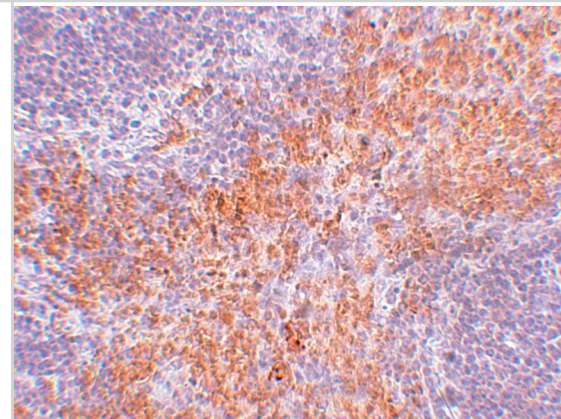
Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Peptide affinity purified
Buffer	PBS
Target Molecular Weight	70.7 kDa

Product Description	
Description	Novus Biologicals Rabbit RIPK1/RIP1 Antibody - BSA Free (NBP1-77077) is a polyclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-RIPK1/RIP1 Antibody: Cited in 20 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	8737
Gene Symbol	RIPK1
Species	Human, Mouse, Rat
Immunogen	Antibody was raised against a 15 amino acid synthetic peptide from near the amino terminus of human RIPK1. The immunogen is located within amino acids 180 - 230 of RIPK1. Amino Acid Squence: DVNAKPTEKSDVYS

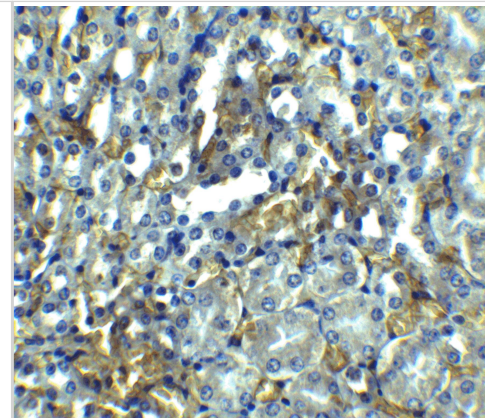
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Knockdown Validated
Recommended Dilutions	Western Blot 1 ug/ml, ELISA 1:100-1:2000, Immunohistochemistry 2.5 ug/ml, Immunocytochemistry/ Immunofluorescence 20 ug/ml, Immunohistochemistry-Paraffin 2.5 ug/ml, Knockdown Validated

**Images**

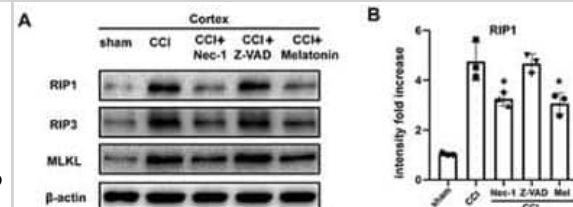
Immunohistochemistry: RIPK1/RIP1 Antibody - BSA Free [NBP1-77077]  
- Immunohistochemistry of RIPK1/RIP1 in mouse kidney tissue with RIPK1/RIP1 antibody at 2.5 ug/mL.



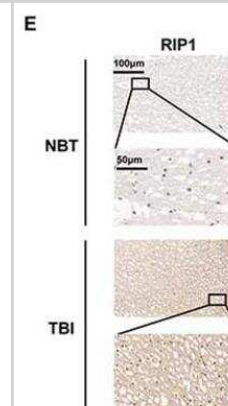
Immunohistochemistry: RIPK1/RIP1 Antibody [NBP1-77077] - BSA Free [NBP1-77077] - Immunohistochemistry of RIPK1/RIP1 in mouse kidney tissue with RIPK1/RIP1 antibody at 2.5 ug/ml.



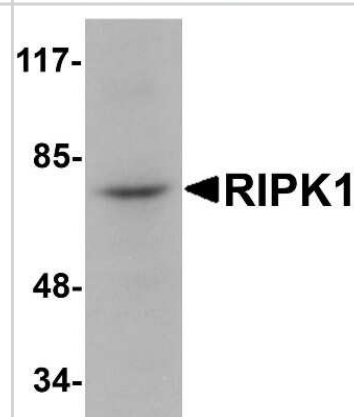
Western Blot: RIPK1/RIP1 Antibody [NBP1-77077] - At 6 h after CCI, RIP1 protein levels in the cortex detected by western blotting were decreased in Nec-1 and melatonin pretreatment groups, but there was no change in the Z-VAD pretreatment group. Values are represented as means  $\pm$  SEM (n = 3). B-actin was used as a control in western blot assays. All data were analyzed by one way ANOVA plus Tukey's test. \*P < 0.05 and \*\*P < 0.01 vs. CCI group. Image collected and cropped by CiteAb from the following publication (<https://www.frontiersin.org/article/10.3389/fnmol.2019.00222/full>) licensed under a CC-BY license.



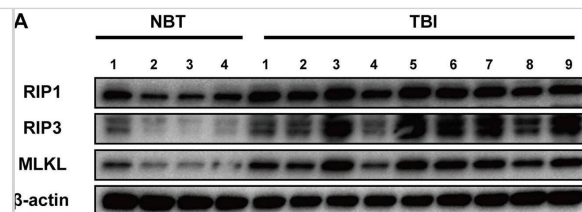
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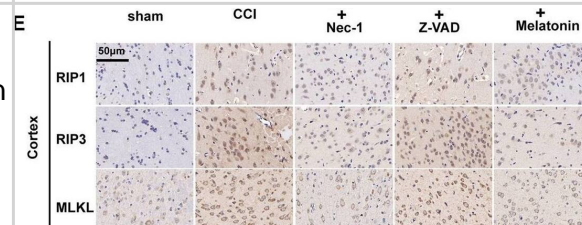
Western Blot: RIPK1/RIP1 Antibody [NBP1-77077] - Rat kidney tissue lysate with RIPK1 antibody at 1 ug/mL.



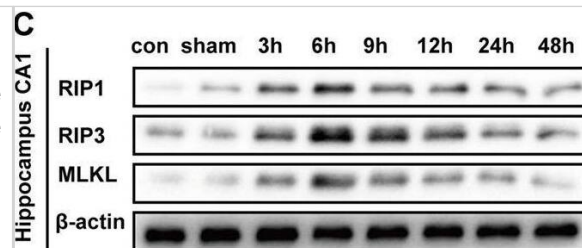
Western Blot: RIPK1/RIP1 Antibody - BSA Free [NBP1-77077] - Traumatic brain injury (TBI) tissues show increased necroptosis compared with normal brain tissues (NBTs). (A) The protein expressions of receptor-interacting protein 1 (RIP1), RIP3 & mixed lineage kinase domain-like protein (MLKL) were analyzed in human NBT (n = 4) & TBI tissues (n = 9) via western blotting.  $\beta$ -actin was used as a control. (B–D) Protein expression of RIP1, RIP3 & MLKL was analyzed by statistical. (E) The expressions of RIP1, RIP3 & MLKL were tested in NBT & TBI tissues from Jiangsu Province Hospital by immunohistochemistry. (F) Electron microscopy was used to examine human normal brain & TBI tissues. Intact cell membrane (violet arrow) is labeled in NBT. Complete & continuous nuclear membrane (black arrow), swollen mitochondria (green arrow) & vacuoles (red arrow) are labeled in TBI tissues. All data were analyzed by one way analysis of variance (ANOVA) plus Tukey's test. \*\*P < 0.01 vs. NBT group. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31607859>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



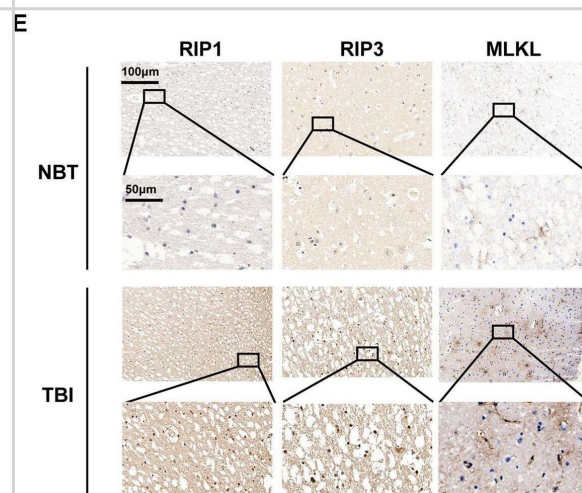
Immunohistochemistry: RIPK1/RIP1 Antibody - BSA Free [NBP1-77077] - Effect of Nec-1, Z-VAD & melatonin on necroptosis. (A) At 6 h after CCI, RIP1, RIP3 & MLKL protein levels in the cortex detected by western blotting were decreased in Nec-1 & melatonin pretreatment groups, but there was no change in the Z-VAD pretreatment group. (B–D) Protein expression of RIP1, RIP3 & MLKL was analyzed by statistical. (E) Immunohistochemistry assays examined the effect of Nec-1, Z-VAD & melatonin on cortex RIP1, RIP3 & MLKL, respectively. (F) At 6 h after CCI, RIP1, RIP3 & MLKL protein levels in the hippocampus CA1 detected by western blotting were decreased in the Nec-1 & melatonin pretreatment groups, but not the Z-VAD pretreatment group. (G–I) Protein expression of RIP1, RIP3 & MLKL was analyzed by statistical. (J) Immunohistochemistry assays examined the effect of Nec-1, Z-VAD & melatonin on RIP1, RIP3 & MLKL in hippocampus CA1, respectively. (K) TdT-mediated dUTP Nick-End Labeling (TUNEL; green) & cleaved caspase-3 (red) dual immunofluorescent labeling was used & were analyzed by statistical (L,M) in the five groups. Values are represented as means  $\pm$  SEM (n = 3).  $\beta$ -actin was used as a control in western blot assays. All data were analyzed by one way ANOVA plus Tukey's test. \*P < 0.05 & \*\*P < 0.01 vs. CCI group. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31607859>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



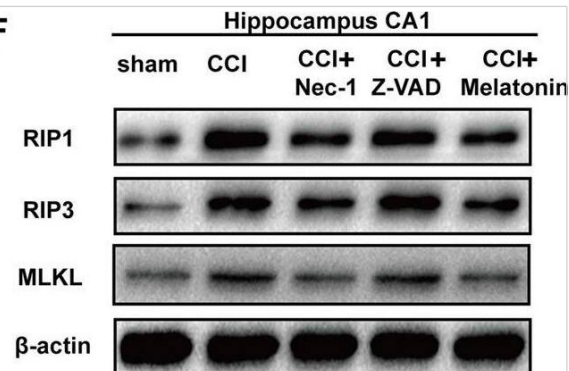
**Western Blot: RIPK1/RIP1 Antibody - BSA Free [NBP1-77077] - Tissues** were obtained to perform western blot assays. (A) Location of collected tissues was labeled. Collected cortical tissues & hippocampus CA1 were marked by white & yellow frame, respectively. RIP1, RIP3 & MLKL in the (B) cortex & (C) hippocampus CA1 were examined via western blot from 0 h to 48 h after controlled cortical impact (CCI). Protein expression of RIP1, RIP3 & MLKL in the (D–F) cortex & (G–I) hippocampus CA1 from 0 h to 48 h after CCI was analyzed by statistical. Values are represented as means  $\pm$  SEM (n = 3–4). (J) Cleaved caspase-3 was detected in cortex & hippocampus CA1 via western blotting from 0 h to 48 h after CCI. (K,L) Protein expression of cleaved caspase-3 in the cortex & hippocampus CA1 from 0 h to 48 h after CCI was measured. Values are represented as means  $\pm$  SEM (n = 4–5). (M) Cleaved caspase-8 was detected in cortex & hippocampus CA1 via western blotting from 0 h to 48 h after CCI. (N,O) Protein expression of cleaved caspase-8 in the cortex & hippocampus CA1 from 0 h to 48 h after CCI was analyzed. Values are represented as means  $\pm$  SEM (n = 4–5).  $\beta$ -actin was used as a control in western blot assays. All data were analyzed by one way ANOVA plus Tukey's test. \*P < 0.05 & \*\*P < 0.01 vs. sham group. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31607859>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



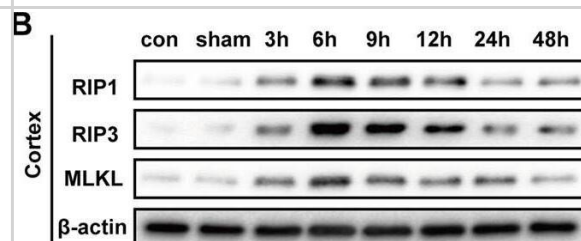
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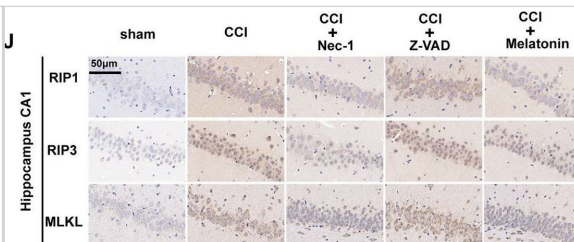
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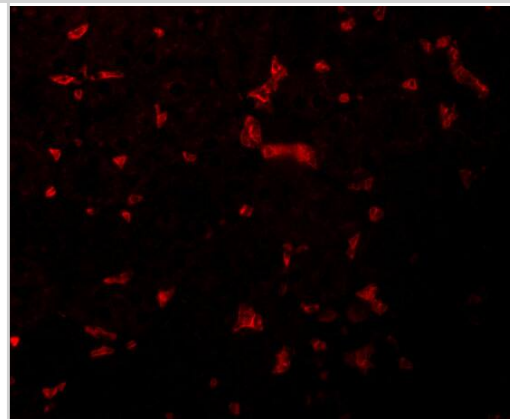
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Immunocytochemistry/ Immunofluorescence: RIPK1/RIP1 Antibody - BSA Free [NBP1-77077] - Immunofluorescence of RIPK1/RIP1 in Mouse Kidney cells with RIPK1/RIP1 antibody at 20 ug/mL.



## Publications

Thadathil N, Nicklas EH, Mohammed S et al. Necroptosis increases with age in the brain and contributes to age-related neuroinflammation *GeroScience* 2021-10-01 [PMID: 34515928] (Immunohistochemistry-Paraffin, Mouse)

Chen XC, Huang LF, Tang JX et Al. Asiatic acid alleviates cisplatin-induced renal fibrosis in tumor-bearing mice by improving the TFEB-mediated autophagy-lysosome pathway *Biomed Pharmacother* 2023-08-17 [PMID: 37413899]

Miyake, K;Ito, J;Takahashi, K;Nakabayashi, J;Brombacher, F;Shichino, S;Yoshikawa, S;Miyake, S;Karasuyama, H; Single-cell transcriptomics identifies the differentiation trajectory from inflammatory monocytes to pro-resolving macrophages in a mouse skin allergy model *Nature communications* 2024-02-23 [PMID: 38396021]

Miyake K, Ito J, Takahashi K et al. Single-cell transcriptomics identifies the differentiation trajectory from inflammatory monocytes to pro-resolving macrophages in skin allergy *Research Square* 2023-03-23 (IHC, Mouse)

Shao R, Xie Q, Pan L et al. Necrostatin-1 attenuates Caspase-1-dependent pyroptosis induced by the RIPK1/ZBP1 pathway in ventilator-induced lung injury *Cytokine* 2022-09-01 [PMID: 35780712]

Liu K, Huang J, Liu J et al. Induction of autophagy-dependent ferroptosis to eliminate drug-tolerant human retinoblastoma cells *Cell death & disease* 2022-06-02 [PMID: 35654783] (WB, Human)

Lorenzo N, Sanavia T, Rocco C et al. Necroptosis driving genes RIPK1, RIPK3, and MLKL-p are associated with intratumoral CD3+ and CD8+ T-cell density and predict prognosis in Hepatocellular Carcinoma *Journal for ImmunoTherapy of Cancer* 2022-01-01 [PMID: 35264437]

Kamiya M, Mizoguchi F, Kawahata K et al. Targeting necroptosis in muscle fibers ameliorates inflammatory myopathies *Nature communications* 2022-01-10 [PMID: 35013338] (ICC/IF, Mouse)

Pesce NA, Canovai A, Plastino F Et al. An imbalance in autophagy contributes to retinal damage in a rat model of oxygen-induced retinopathy *Journal of cellular and molecular medicine* 2021-10-08 [PMID: 34623024] (WB, ICC/IF, Rat)

Naseroleslami M, Niri NM, Akbarzade I et al. Simvastatin-loaded nano-niosomes confer cardioprotection against myocardial ischemia/reperfusion injury *Drug delivery and translational research* 2021-06-24 [PMID: 34165730]

Sharifi M, Nazarinia D, Ramezani F et al. Necroptosis and RhoA/ROCK pathways: molecular targets of Nesfatin-1 in cardioprotection against myocardial ischemia/reperfusion injury in a rat model *Molecular biology reports* 2021-03-23 [PMID: 33755849]

Zhao Y, Zhu X, Zhang L et al. Mesenchymal stem/stromal cells and their extracellular vesicle progeny decrease injury in post-stenotic swine kidney through different mechanisms *Stem Cells Dev.* 2020-07-12 [PMID: 32657229]

More publications at <http://www.novusbio.com/NBP1-77077>





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Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### Products Related to NBP1-77077

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NBP1-77077PEP	RIPK1/RIP1 Antibody Blocking Peptide
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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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