

# Product Datasheet

## AIF-1/Iba1 Antibody - Azide and BSA Free NBP2-19019

Unit Size: 100 ul

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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



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**NBP2-19019**

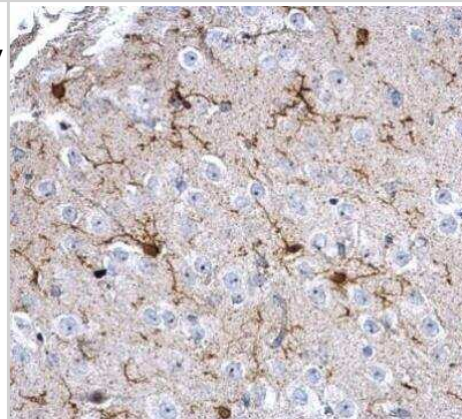
AIF-1/Iba1 Antibody - Azide and BSA Free

<b>Product Information</b>	
<b>Unit Size</b>	100 ul
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	No Preservative
<b>Isotype</b>	IgG
<b>Purity</b>	Antigen Affinity-purified
<b>Buffer</b>	PBS
<b>Target Molecular Weight</b>	17 kDa
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Rabbit AIF-1/Iba1 Antibody - Azide and BSA Free (NBP2-19019) is a polyclonal antibody validated for use in IHC, WB, Flow, ICC/IF and Simple Western. Anti-AIF-1/Iba1 Antibody: Cited in 29 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	199
<b>Gene Symbol</b>	AIF1
<b>Species</b>	Human, Mouse, Rat
<b>Marker</b>	pan-Microglia Marker
<b>Immunogen</b>	Carrier-protein conjugated synthetic peptide encompassing a sequence within the C-terminus region of human AIF-1/Iba1. The exact sequence is proprietary.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry Free-Floating
<b>Recommended Dilutions</b>	Western Blot 1:500-1:10000, Simple Western 1:50, Flow Cytometry 1:50-1:200, Immunohistochemistry 1:100-1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000, Immunohistochemistry-Frozen 1:100-1:1000, Immunohistochemistry Free-Floating Assay dependent
<b>Application Notes</b>	Simple Western Separated by Size, antibody dilution of 1:50, detects a band at 25 kDa.

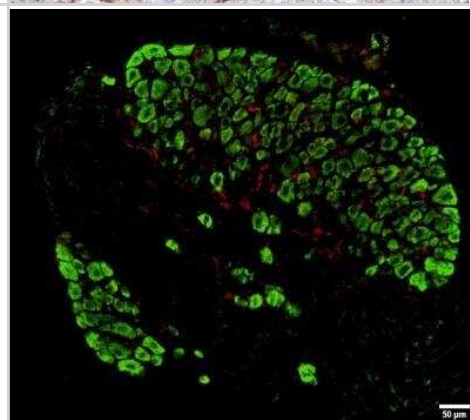


## Images

Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - Mouse fore brain. Iba1 antibody dilution: 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min



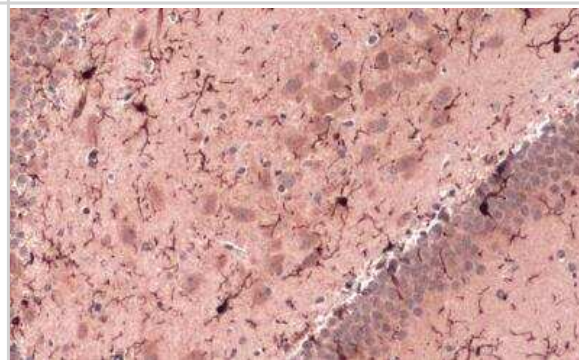
Immunocytochemistry/Immunofluorescence: AIF-1/Iba1 Antibody [NBP2-19019] - AIF-1/Iba1 Antibody (1 1:1000, Red) expression in dorsal root ganglia. Green fluorescent Nissl was used as counter-staining. Image submitted by a verified customer review.



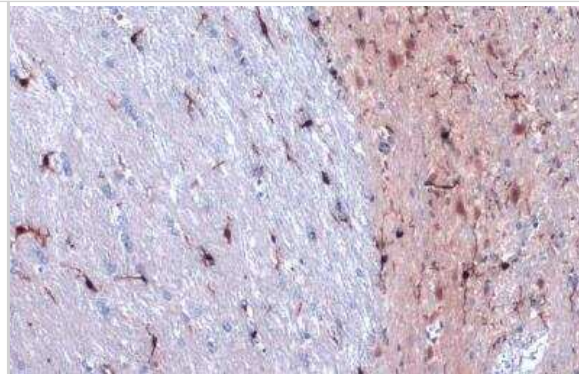
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - Mouse cerebellum stained by AIF-1/Iba1 Antibody diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.



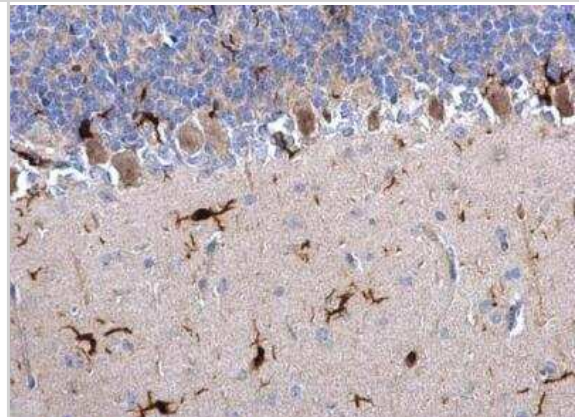
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - Rat brain stained by AIF-1/Iba1 Antibody diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.



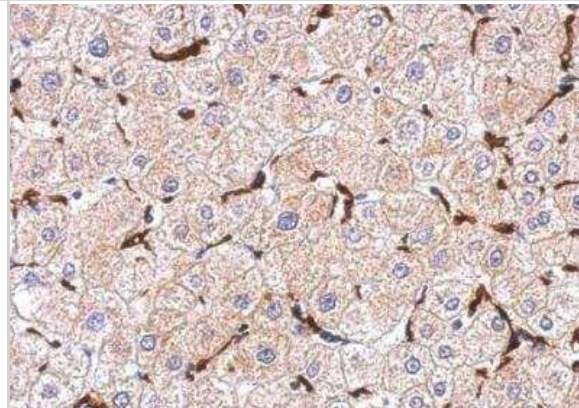
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - Rat cerebellum stained by AIF-1/Iba1 Antibody diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.



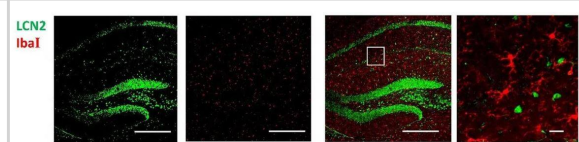
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - Rat hind brain. Iba1 antibody dilution: 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min



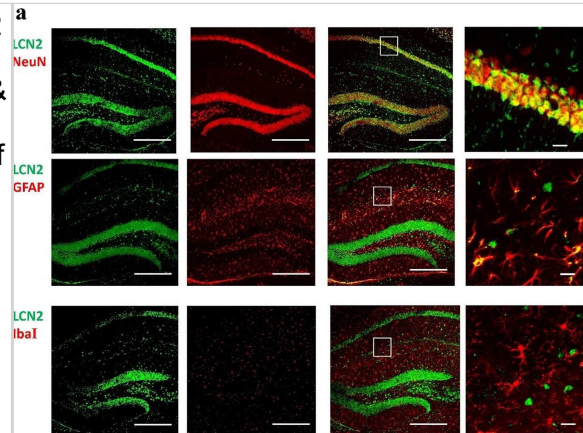
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - Analysis of paraffin-embedded human hepatoma, using at 1:500 dilution. Iba1 antibody detects AIF-1/Iba1 in the cytosol of Kupffer cell in human hepatoma by immunohistochemical analysis.



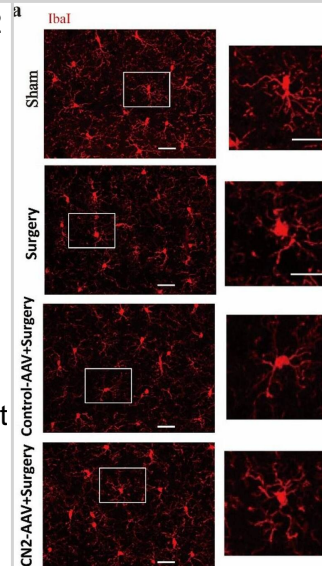
Immunohistochemistry: AIF-1/Iba1 Antibody [NBP2-19019] - LCN2 mainly expressed on neurons. a Representative immunofluorescence images of LCN2 (green) and AIF-1/Iba1 (red) staining in sections of the hippocampus after surgery. Long scale bar, 600 um; short scale bar, 25 um. Image collected and cropped by CiteAb from the following publication (pubmed.ncbi.nlm.nih.gov/35413913) licensed under a CC-BY license.



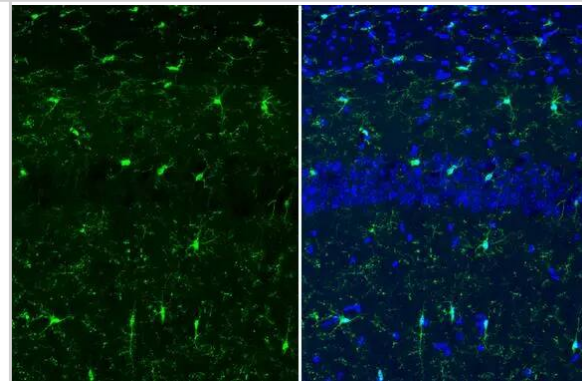
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NBP2-19019] - LCN2 mainly expressed on neurons. a Representative immunofluorescence images of LCN2 (green), GFAP (red), NeuN (red) & Iba1 (red) staining in sections of the hippocampus after surgery. Long scale bar, 600  $\mu$ m; short scale bar, 25  $\mu$ m. b Percentage quantification of LCN2 positive cells (n = 3 mice/group). c Cartoon depicting MACS sorting procedures for isolating CD11b+ & CD11b - cells. d Relative expression of cx3cr1 in CD11b + & CD11b - cells after sorting from all samples. d Relative expression level of Lcn2 mRNA in CD11b + & CD11b - cells from hippocampus 6 h after surgery. e Relative expression level of IL-6 mRNA in CD11b + cells. Data are represented as mean  $\pm$  SEM. \*\*\*\* P < 0.0001 Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35413913>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



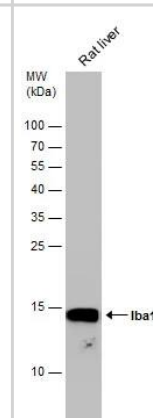
Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NBP2-19019] - Knockdown of LCN2 prevents microglial activation & neuroinflammation. a Representative immunofluorescence images of hippocampal sections with Iba1+ cells (White). Scale bars, 150  $\mu$ m. b Quantification of the microglia density in (A) (n = 4 mice/group, 2–3 slides/mice). c Quantification of the microglia Ramification index at 24 h after surgery (n = 72 cells from 4 mice/group). d Number of process intersections with shells at distances (in 2  $\mu$ m in increments) from the soma by Sholl analysis at 24 h after surgery (n = 72 cells from 4 mice/group). e Tissue ELISA of IL-6 at 24 h after surgery (n = 5 mice/group). f Relative expression level of *tnf- $\alpha$* , IL-6 and/or IL-1 $\beta$  6 h after application of rLCN2 (500 ng/mL) on BV-2 (n = 4–6/group) & primary microglia cells (n = 3/group). Vehicle: PBS buffer. Data represent mean  $\pm$  SEM; n = 4/group. \* P < 0.05; \*\*\* P < 0.001 Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35413913>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



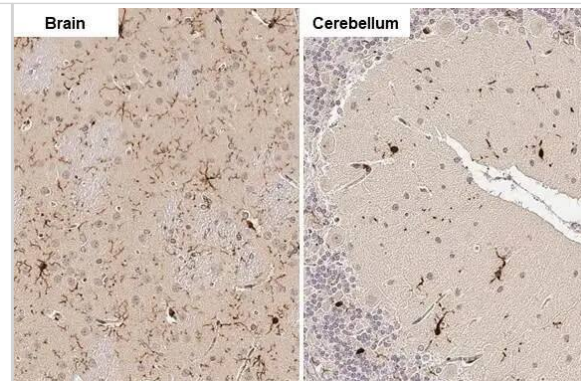
Immunohistochemistry: AIF-1/Iba1 Antibody [NBP2-19019] - AIF-1/Iba1 antibody detects AIF-1/Iba1 protein at cell membrane and cytoplasm by immunohistochemical analysis. Sample: Frozen-sectioned mouse brain. Green: AIF-1/Iba1 stained by AIF-1/Iba1 antibody (NBP2-19019) diluted at 1:500. Blue: Fluoroshield with DAPI. Antigen Retrieval: ice-cold MeOH for 5 min



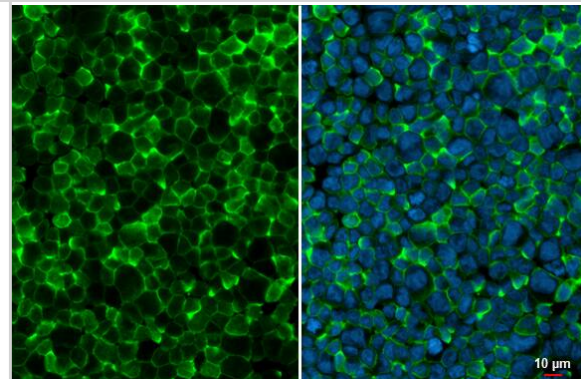
Western Blot: AIF-1/Iba1 Antibody [NBP2-19019] - Rat tissue extract (50 ug) was separated by 15% SDS-PAGE, and the membrane was blotted with AIF-1/Iba1 antibody (NBP2-19019) diluted at 1:1000.



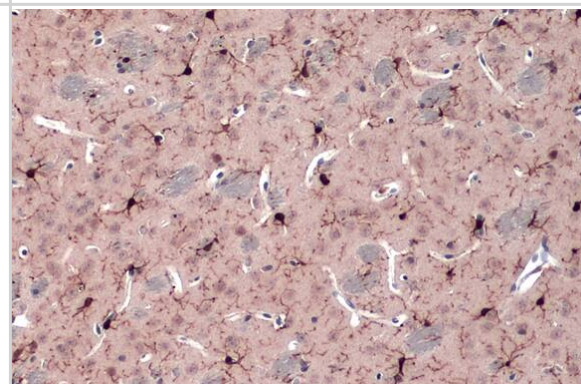
Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - AIF-1/Iba1 antibody detects AIF-1/Iba1 protein by immunohistochemical analysis. Sample: Paraffin-embedded rat tissues. AIF-1/Iba1 stained by AIF-1/Iba1 antibody (NBP2-19019) diluted at 1:100. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



Immunocytochemistry/ Immunofluorescence: AIF-1/Iba1 Antibody [NBP2-19019] - AIF-1/Iba1 antibody detects AIF-1/Iba1 protein at cell membrane by immunofluorescent analysis. Sample: THP-1 cells were fixed in 4% paraformaldehyde at RT for 15 min. Green: AIF-1/Iba1 stained by AIF-1/Iba1 antibody (NBP2-19019) diluted at 1:500. Blue: Fluoroshield with DAPI .



Immunohistochemistry-Paraffin: AIF-1/Iba1 Antibody [NBP2-19019] - AIF-1/Iba1 antibody detects AIF-1/Iba1 protein at cell membrane and cytoplasm by immunohistochemical analysis. Sample: Paraffin-embedded mouse brain. AIF-1/Iba1 stained by AIF-1/Iba1 antibody (NBP2-19019) diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



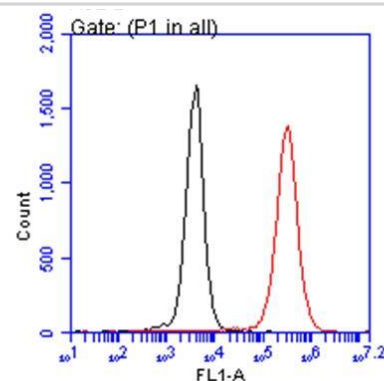
Iba1 antibody (NBP2-19019) detects AIF1 protein by flow cytometry analysis.

Sample: THP-1 cell.

Black: Unlabelled sample was used as a control.

Red: Iba1 antibody (NBP2-19019) dilution: 1:50.

Acquisition of 20,000 events were collected for FACS analysis.



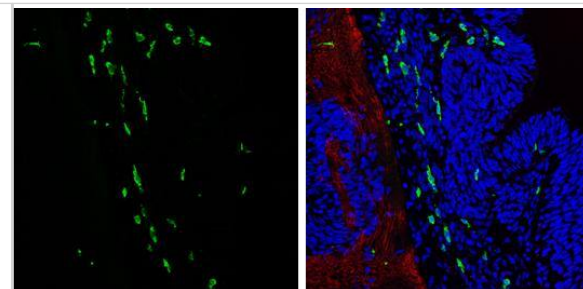
Iba1 antibody detects Iba1 protein expression at microglias by immunohistochemical analysis.

Sample: Frozen sectioned E13.5 Rat brain.

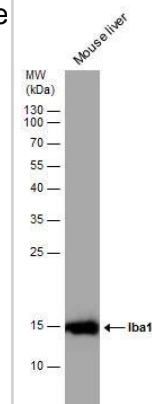
Green: Iba1 protein stained by Iba1 antibody (NBP2-19019) diluted at 1:250.

Red: beta Tubulin 3/ TUJ1, a mature neuron marker, stained by beta Tubulin 3/ TUJ1 antibody [GT11710] diluted at 1:500.

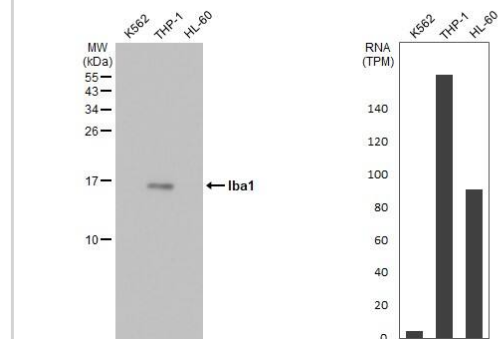
Blue: Fluoroshield with DAPI .



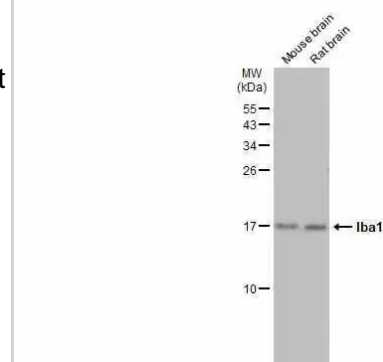
Mouse tissue extract (50 ug) was separated by 15% SDS-PAGE, and the membrane was blotted with Iba1 antibody (NBP2-19019) diluted at 1:1000.



Various whole cell extracts (30 ug) were separated by 15% SDS-PAGE, and the membrane was blotted with Iba1 antibody (NBP2-19019) diluted at 1:1000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody. Corresponding RNA expression data for the same cell lines are based on Human Protein Atlas program.



Various tissue extracts (50 ug) were separated by 15% SDS-PAGE, and the membrane was blotted with Iba1 antibody (NBP2-19019) diluted at 1:1000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



## Publications

Giannone A, Butler S, Larouche J et al. Deconstruction of cellular dynamics after treatment of volumetric muscle loss injury with extracellular matrix NPJ Regenerative Medicine 2025-09-29 [PMID: 41022770]

Rodriguez-Baena F, Marquez-Galera A, Ballesteros-Martinez P et al. Microglial reprogramming enhances antitumor immunity and immunotherapy response in melanoma brain metastases. Cancer Cell 2025-02-04 [PMID: 39919736]

Camarano, J;Roque, M;Gahn, G;Whipple, SG;Terrell, D;Ronkon, C;Toms, J;Sin, A;Guthikonda, B;Latha, K;Yang, Y;Shen, X;Kevil, CG;Rao, G;Lee, S; Hydrogen sulfide inhibits recruitment of monocyte-derived tumor associated macrophages in glioblastoma by downregulating CXCL12 Redox biology 2025-10-01 [PMID: 40930029]

Borcherding S, Wood M, Pinni S et al. Prevention of nerve growth and evoked pain with a nerve cap graft device NPJ Regenerative Medicine 2025-06-07 [PMID: 40483349]

Henriques A, Rouvière L, Giorla E et al. Alpha-Synuclein: The Spark That Flames Dopaminergic Neurons, In Vitro and In Vivo Evidence International Journal of Molecular Sciences 2022-08-30 [PMID: 36077253] (Western Blot, Mouse)

Ma, N;Li, G;Fu, X; Protective role of activating transcription factor 3 against neuronal damage in rats with cerebral ischemia Brain and behavior [PMID: 35263513] (Western Blot, Mouse)

Hong J, Adam RJ, Gao L et al. Macrophage activation in stellate ganglia contributes to lung injury-induced arrhythmogenesis in male rats Acta physiologica (Oxford, England) 2021-04-05 [PMID: 33817984] (Western Blot, Mouse)

Tsujikawa S, DeMeulenaere KE, Centeno MV et al. Regulation of neuropathic pain by microglial Orai1 channels Science Advances 2023-01-27 [PMID: 36706180] (Western Blot, Mouse)

Pawlik K, Ciapała K, Ciechanowska A et al. Pharmacological Evidence of the Important Roles of CCR1 and CCR3 and Their Endogenous Ligands CCL2/7/8 in Hypersensitivity Based on a Murine Model of Neuropathic Pain Cells 2022-12-26 [PMID: 36611891] (Western Blot, Mouse)

Williams EP, Xue Y, Lee J et al. Deep spatial profiling of Venezuelan equine encephalitis virus reveals increased genetic diversity amidst neuroinflammation and cell death during brain infection Journal of Virology 2023-08-31 [PMID: 37560924] (Western Blot, Mouse)

Kuleshkaya N, Bhattacharjee A, Holmström KM et al. HER-096 is a CDNF-derived brain-penetrating peptidomimetic that protects dopaminergic neurons in a mouse synucleinopathy model of Parkinson's disease Cell chemical biology 2023-11-24 [PMID: 38039968]

Katja Niesel, Michael Schulz, Julian Anthes, Tijna Alekseeva, Jadranka Macas, Anna Salamero Boix, Aylin Möckl, Timm Oberwahrenbrock, Marco Lohies, Stefan Stein, Karl H Plate, Yvonne Reiss, Franz Rödel, Lisa Sevenich The immune suppressive microenvironment affects efficacy of radioimmunotherapy in brain metastasis EMBO Molecular Medicine 2021-03-23 [PMID: 33755340]

More publications at <http://www.novusbio.com/NBP2-19019>



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General: novus@novusbio.com

### **Products Related to NBP2-19019**

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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.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

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