

# Product Datasheet

## Aquaporin-4 Antibody - BSA Free NBP1-87679

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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**NBP1-87679**

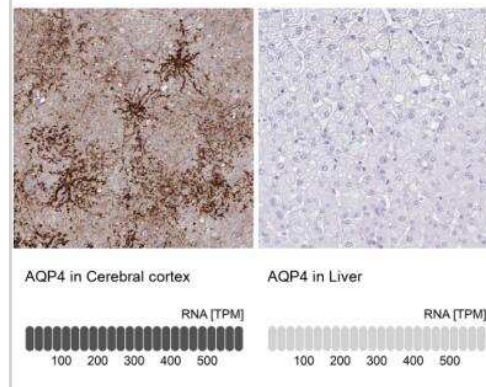
Aquaporin-4 Antibody - BSA Free

<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS (pH 7.2), 40% Glycerol
<b>Target Molecular Weight</b>	35 kDa
<b>Product Description</b>	
<b>Host</b>	Rabbit
<b>Gene ID</b>	361
<b>Gene Symbol</b>	AQP4
<b>Species</b>	Human, Mouse, Rat, Bovine
<b>Reactivity Notes</b>	Use in Rat reported in scientific literature (PMID:33634832). Bovine reactivity reported in scientific literature (PMID: 31233960).
<b>Marker</b>	Astrocytes Marker
<b>Immunogen</b>	This antibody was developed against Recombinant Protein corresponding to amino acids: CPDVEFKRRFKEAFSKAAQQTKGSYMEVEDNRSQVETDDLILKPGVVHVIDVD RGEEKKGGKDQSGEVLSSV
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 0.04 - 0.4 ug/mL, Immunohistochemistry 1:2500 - 1:5000, Immunoprecipitation Reported in scientific literature (PMID: 32843684), Immunohistochemistry-Paraffin 1:2500 - 1:5000, Immunohistochemistry-Frozen Validated from verified customer review.
<b>Application Notes</b>	For IHC-Paraffin, HIER pH 6 retrieval is recommended.

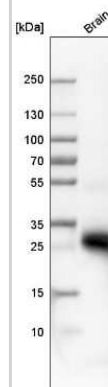


## Images

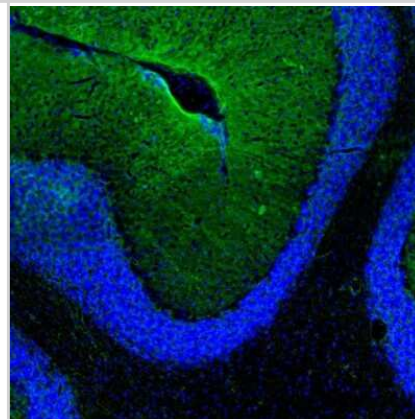
Immunohistochemistry-Paraffin: Aquaporin-4 Antibody [NBP1-87679] - Analysis in human cerebral cortex and liver tissues. Corresponding AQP4 RNA-seq data are presented for the same tissues.



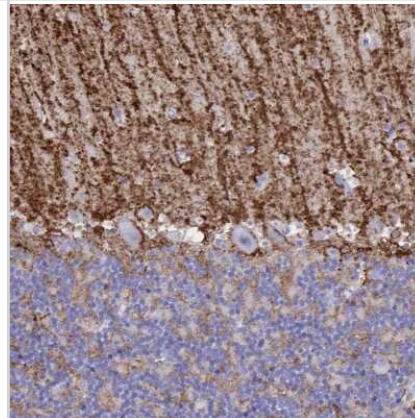
Western Blot: Aquaporin-4 Antibody [NBP1-87679] - Analysis in human brain tissue.



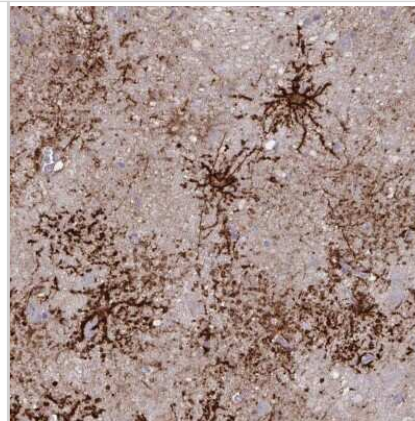
Immunohistochemistry: Aquaporin-4 Antibody [NBP1-87679] - Staining of mouse cerebellum shows positivity in astrocytes, mainly in the molecular layer.



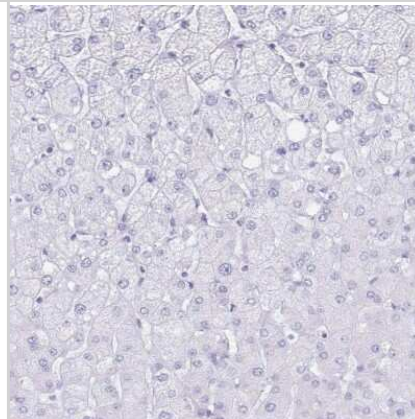
Immunohistochemistry-Paraffin: Aquaporin-4 Antibody [NBP1-87679] - Staining of human cerebellum shows moderate to strong membranous positivity in astrocytes, mainly in the molecular layer.



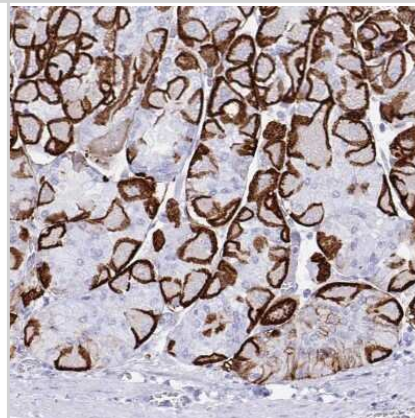
Immunohistochemistry-Paraffin: Aquaporin-4 Antibody [NBP1-87679] - Staining of human cerebral cortex shows moderate to strong membranous positivity in astrocytes.



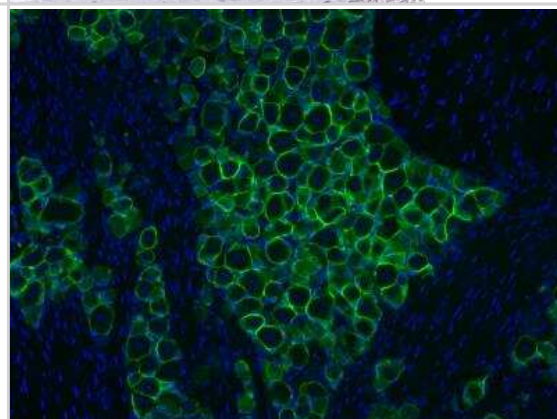
Immunohistochemistry-Paraffin: Aquaporin-4 Antibody [NBP1-87679] - Staining of human liver shows no positivity in hepatocytes, as expected.



Immunohistochemistry-Paraffin: Aquaporin-4 Antibody [NBP1-87679] - Staining of human stomach shows strong membranous positivity in glandular cells.



Immunohistochemistry-Frozen: Aquaporin-4 Antibody [NBP1-87679] - Mouse trigeminal ganglion stained with Aquaporin-4 antibody at 1:5000. Image submitted by a verified customer review



## Publications

Munro DAD, Bestard-Cuche N, McQuaid C, Chagnot A et Al. Microglia protect against age-associated brain pathologies *Neuron* 2024-06-19 [PMID: 38897208]

Yang Q, Yasvoina M, Olvera-Barrios A et al. Deciphering the Connection Between Microvascular Damage and Neurodegeneration in Early Diabetic Retinopathy *Diabetes* 2024-11-01 [PMID: 38968415]

C Beretta, E Svensson, A Dakhel, M Zyśk, J Hanrieder, D Sehlin, W Michno, A Erlandsson Amyloid- $\beta$  deposits in human astrocytes contain truncated and highly resistant proteoforms. *Molecular and cellular neurosciences* 2024-01-18 [PMID: 38244652]

Micha?ek K, Oberska P, Murawski M et al. Kidney morphology and renal expression of aquaporins 2, 3 and 4 during cerulein - Induced chronic pancreatitis in pigs *Advances in medical sciences* 2023-09-12 [PMID: 37708639] (WB, IHC-Fr, Porcine)

Palavicini JP, Ding L, Pan M et al. Sulfatide Deficiency, an Early Alzheimer's Lipidomic Signature, Causes Brain Ventricular Enlargement in the Absence of Classical Neuropathological Hallmarks *International Journal of Molecular Sciences* 2022-12-23 [PMID: 36613677] (Immunohistochemistry, Western Blot, Block/Neutralize)

Konstantinidis E, Dakhel A, Beretta C, Erlandsson A Long-term effects of amyloid-beta deposits in human iPSC-derived astrocytes *Molecular and cellular neurosciences* 2023-03-11 [PMID: 36907531] (Western Blot, Immunocytochemistry/ Immunofluorescence, Human)

Wypych A, Dunis?awska A, Grabowska M et al. Effects of three-month feeding high-fat diets with different fatty acid composition on kidney histology and expression of genes related to cellular stress and water-electrolyte homeostasis in mice *Journal of Animal and Feed Sciences* 2023-06-22 (Immunohistochemistry-Paraffin, Mouse)

Zy?k M, Beretta C, Naia L et al. Amyloid- $\beta$  accumulation in human astrocytes induces mitochondrial disruption and changed energy metabolism *Journal of neuroinflammation* 2023-02-20 [PMID: 36803838] (Immunocytochemistry/ Immunofluorescence)

Xu C, Wang F, Su C et al. Restoration of aquaporin-4 polarization in the spinal glymphatic system by metformin in rats with painful diabetic neuropathy *Neuroreport* 2023-02-01 [PMID: 36719843] (WB, IHC-P, Rat)

Wang GQ, Wang FX, He YN, Lin JY Plasticity of the spinal glymphatic system in male SD rats with painful diabetic neuropathy induced by type 2 diabetes mellitus *Journal of neuroscience research* 2022-07-07 [PMID: 35796387]

Wang FX, Xu CL, Su C et al. beta-Hydroxybutyrate Attenuates Painful Diabetic Neuropathy via Restoration of the Aquaporin-4 Polarity in the Spinal Glymphatic System *Frontiers in neuroscience* 2022-07-11 [PMID: 35898407]

Xue Y, Gursky Z, Monte B et al. Sustained glymphatic transport and impaired drainage to the nasal cavity observed in multiciliated cell ciliopathies with hydrocephalus *Fluids and barriers of the CNS* 2022-03-05 [PMID: 35248089] (IHC-Fr, Mouse)

More publications at <http://www.novusbio.com/NBP1-87679>



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### **Products Related to NBP1-87679**

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NBP1-87679PEP	Aquaporin-4 Recombinant Protein Antigen
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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