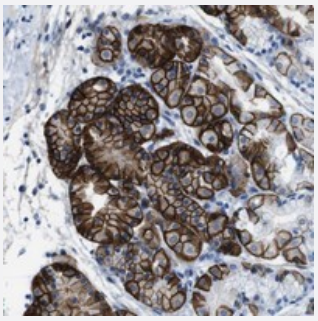
AQP4 polyclonal antibody

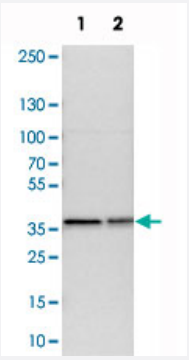
Catalog # PAB20767 Size 100 uL

Applications



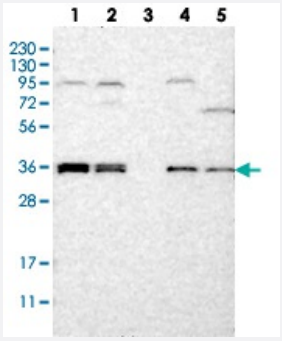
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining of human stomach with AQP4 polyclonal antibody (Cat # PAB20767) shows strong cytoplasmic and membranous positivity in glandular cells.



Western Blot (Cell lysate)

Western blot analysis of cell lysates with AQP4 polyclonal antibody (Cat # PAB20767).
Lane 1 : NIH/3T3
Lane 2 : NBT-II



Western Blot

Western blot analysis of Lane 1: RT-4, Lane 2: U-251 MG, Lane 3: Human Plasma, Lane 4: Liver, Lane 5: Tonsil with AQP4 polyclonal antibody (Cat # PAB20767).

Specification

Product Description	Rabbit polyclonal antibody raised against recombinant AQP4.

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Immunogen	Recombinant protein corresponding to amino acids of human AQP4.
Sequence	CPDVEFKRRFKEAFSKAAQQTKGSYMEVEDNRSQVETDDLILKPGVVHVIDVDRGEEKKGKDQ SGEVLSSV
Host	Rabbit
Reactivity	Human, Mouse, Rat
Form	Liquid
Purification	Antigen affinity purification
Isotype	IgG
Recommend Usage	Immunohistochemistry (1:2500-1:5000) Western Blot (1:250-1:500) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.2 (40% glycerol, 0.02% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

  Immunohistochemical staining of human stomach with AQP4 polyclonal antibody (Cat # PAB20767) shows strong cytoplasmic and membranous positivity in glandular cells.

- Western Blot (Cell lysate)

  Western blot analysis of cell lysates with AQP4 polyclonal antibody (Cat # PAB20767).
  Lane 1 : NIH/3T3
  Lane 2 : NBT-II

- Western Blot

  Western blot analysis of Lane 1: RT-4, Lane 2: U-251 MG, Lane 3: Human Plasma, Lane 4: Liver, Lane 5: Tonsil with AQP4 polyclonal antibody (Cat # PAB20767).

Gene Info — AQP4

Entrez GeneID	361

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Protein Accession#	P55087
Gene Name	AQP4
Gene Alias	HMIWC2, MGC22454, MIWC
Gene Description	aquaporin 4
Omim ID	600308
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a member of the aquaporin family of intrinsic membrane proteins that function as water-selective channels in the plasma membranes of many cells. The encoded protein is the predominant aquaporin found in brain. Two alternatively spliced transcript variants encoding distin ct isoforms have been found for this gene. [provided by RefSeq
Other Designations	aquaporin type4|aquaporin-4|mercurial-insensitive water channel

Publication Reference

- Aquaporin-4 as a cerebrospinal fluid biomarker of Alzheimer's disease.

  Nerea Gómez de San José, Steffen Halbgebauer, Petra Steinacker, Sarah Anderl-Straub, Samir Abu-Rumeileh, Lorenzo Barba, Patrick Oeckl, Giovanni Bellomo, Lorenzo Gaetani, Andrea Toja, Sara Mravinacova, Sofia Bergström, Anna M畴nberg, Alberto Grassini, Innocenzo Rainero, Peter Nilsson, Lucilla Parnetti, Markus Otto

  Transl Neurodegener 2024 11; 13(1):57.

- AQP4 labels a subpopulation of white matter-dependent glial radial cells affected by pediatric hydrocephalus, and its expression increased in glial microvesicles released to the cerebrospinal fluid in obstructive hydrocephalus.

  Leandro Castañeyra-Ruiz, Ibrahim González-Marrero, Luis G. Hernández-Abad, Emilia M. Carmona-Calero, Marta R. Pardo, Rebeca Baz-Davila, Seunghyun Lee, Michael Muhonen, Ricardo Borges & Agustín Castañeyra-Perdomo.

  Acta Neuropathologica Communications 2022 Mar; 10(1):41.

  Application: Flow cyt, IF, Human, Human brain

- Preterm intraventricular hemorrhage in vitro: modeling the cytopathology of the ventricular zone.

  Leandro Castaneyra-Ruiz, James P McAllister 2nd, Diego M Morales, Steven L Brody, Albert M Isaacs, David D Limbrick Jr.

  Fluids and Barriers of the CNS 2020 Jul; 17(1):46.

  Application: IHC, Mouse, Ventricular zone

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- Organ Culture and Grafting of Choroid Plexus Into the Ventricular CSF of Normal and Hydrocephalic HTx Rats.

  Conrad E Johanson, Karin Vío, Monserrat Guerra, Paula Salazar, María Clara Jara, Sara Rodríguez, Eduardo Ortega, Leandro Castañeyra-Ruiz, J Patrick McAllister, Esteban M Rodríguez.

  Journal of Neuropathology and Eexperimental Neurology 2020 Jun; 79(6):626.

  Application: IHC, Rat, Choroid plexus

- Neurospheres from neural stem/neural progenitor cells (NSPCs) of non-hydrocephalic HTx rats produce neurons, astrocytes and multiciliated ependyma: the cerebrospinal fluid of normal and hydrocephalic rats supports such a differentiation.

  Henzi R, Guerra M, Vío K, González C, Herrera C, McAllister P, Johanson C, Rodríguez EM.

  Cell and Tissue Research 2018 Aug; 373(2):421.

  Application: IF, Rat, Neurospheres

- Paraneoplastic Neuromyelitis Optica Spectrum Disorder: A single center cohort description with two cases of histological validation.

  Beauchemin P, Iorio R, Traboulsee AL, Field T, Tinker AV, Carruthers RL.

  Multiple Sclerosis and Related Disorders 2018 Feb; 20:37.

  Application: IF, IHC-P, Human, Paraneoplastic neuromyelitis optica spectrum disorder

- Blood-brain barrier and foetal-onset hydrocephalus, with a view on potential novel treatments beyond managing CSF flow.

  Guerra M, Blázquez JL, Rodríguez EM.

  Fluids and Barriers of the CNS 2017 Jul; 14(1):19.

  Application: IF, Human, Human cerebral cortex

- Ventricular Zone Disruption in Human Neonates With Intraventricular Hemorrhage.

  McAllister JP, Guerra MM, Ruiz LC, Jimenez AJ, Dominguez-Pinos D, Sival D, den Dunnen W, Morales DM, Schmidt RE, Rodriguez EM, Limbrick DD.

  Journal of Neuropathology and Eexperimental Neurology 2017 May; 76(5):358.

  Application: IF, IHC-P, Human, Brain specimens from preterm infants diagnosed with Intraventricular Hemorrhage

- Neuromyelitis optica spectrum disorder as a paraneoplastic manifestation of lung adenocarcinoma expressing aquaporin-4.

  Iorio R, Rindi G, Erra C, Damato V, Ferilli M, Sabatelli M.

  Multiple Sclerosis 2015 May; 21(6):791.

  Application: IF, IHC-P, Human, Lung adenocarcinoma

Disease

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- Atherosclerosis
- Brain Edema
- Brain Injuries
- Epilepsy
- Genetic Predisposition to Disease
- Infarction
- Migraine Disorders
- Schizophrenia
- Sclerosis
- Sudden Infant Death

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