

Datasheet: MCA2099

BATCH NUMBER 163043

Description:	MOUSE ANTI AQUAPORIN 1
Specificity:	AQUAPORIN 1
Other names:	AQP1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	1/A5F6
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunohistology - Frozen	■			1/500 - 1/1000
Immunohistology - Paraffin (1)	■			1/500 - 1/1000
ELISA	■			1/1000 - 1/20000
Immunoprecipitation			■	
Western Blotting	■			1/1000 - 1/5000
Immunofluorescence	■			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Mouse, Rat, Rabbit</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>

Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.1% Sodium Azide (NaN ₃) 0.1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Synthetic peptide corresponding to amino acids 249-269 of aquaporin 1.
External Database Links	<p>UniProt: P29972 Related reagents</p> <p>Entrez Gene: 358 AQP1 Related reagents</p>
Synonyms	CHIP28
RRID	AB_2056838
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with the cells of the Sp-2/0 Ag14 mouse myeloma cell line.
Specificity	<p>Mouse anti Human aquaporin 1 antibody, clone 1/A5F6 recognizes an epitope within the cytoplasmic domain of the water-specific channel aquaporin 1, also known as AQP1 or CHIP-28.</p> <p>Aquaporin 1 is a ~28 kDa integral membrane protein which was originally identified in red blood cells and the kidney. AQP1 is also expressed by the choroid plexus and various other tissues. The glycosylated forms of AQP1 range between 40-60 kDa.</p>
Histology Positive Control Tissue	Kidney
References	<ol style="list-style-type: none"> 1. Nagy G <i>et al.</i> (2002) Development and characterisation of a monoclonal antibody family against aquaporin 1 (AQP1) and aquaporin 4 (AQP4). Pathol Oncol Res. 8 (2): 115-24. 2. Bódis, B. <i>et al.</i> (2001) Active water selective channels in the stomach: investigation of aquaporins after ethanol and capsaicin treatment in rats. J Physiol Paris. 95 (1-6): 271-5. 3. Francone, V.P. <i>et al</i> (2010) Signaling from the secretory granule to the nucleus: Uhmk1 and PAM. Mol Endocrinol. 24: 1543-58. 4. Felszeghy, S. <i>et al</i> (2004) Expression of aquaporin isoforms during human and mouse tooth development. Arch Oral Biol. 49: 247-57. 5. Ripoche, P. <i>et al.</i> (2004) Human Rhesus-associated glycoprotein mediates facilitated

- transport of NH₃ into red blood cells. [Proc Natl Acad Sci U S A. 101: 17222-7.](#)
6. Lupp, A. *et al.* (2010) Immunohistochemical identification of the PTHR1 parathyroid hormone receptor in normal and neoplastic human tissues. [Eur J Endocrinol. 162: 979-86.](#)
7. Pannabecker, T.L. *et al.* (2008) Quantitative analysis of functional reconstructions reveals lateral and axial zonation in the renal inner medulla. [Am J Physiol Renal Physiol. 294: F1306-14.](#)
8. Thiele, S. *et al.* (2007) A disruptive mutation in exon 3 of the GNAS gene with albright hereditary osteodystrophy, normocalcemic pseudohypoparathyroidism, and selective long transcript variant Gsalpha-L deficiency. [J Clin Endocrinol Metab. 92: 1764-8.](#)
9. Antonelou, M.H. *et al.* (2011) Oxidative stress-associated shape transformation and membrane proteome remodeling in erythrocytes of end stage renal disease patients on hemodialysis. [J Proteomics. 74: 2441-52.](#)
10. Arnaud, L. *et al.* (2010) A functional AQP1 allele producing a Co(a-b-) phenotype revises and extends the Colton blood group system. [Transfusion. 50: 2106-16.](#)
11. Saison, C. *et al.* (2012) A new AQP1 null allele identified in a Gypsy woman who developed an anti-CO3 during her first pregnancy. [Vox Sang. 103: 137-44.](#)
12. Ferré-Dolcet, L. *et al.* (2019) Uterine and placental specific localization of AQP2 and AQP8 is related with changes of serum progesterone levels in pregnant queens. [Theriogenology. 142: 149-57.](#)
13. Hsu, K. *et al.* (2017) Adaptable interaction between aquaporin-1 and band 3 reveals a potential role of water channel in blood CO₂ transport. [FASEB J. 31 \(10\): 4256-64.](#)

Storage	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2099</p> <p>10041</p>
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 ,

	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M383472:210513'

Printed on 18 Jan 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)