

DESCRIPTION

Target:	AQP1
Target aliases:	Aquaporin 1 (Colton Blood Group), CHIP28, Aquaporin 1 (Channel-Forming Integral Protein, 28kDa, CO Blood Group), Urine Water Channel, Aquaporin-CHIP
Fc isotype:	IgG2a
Membrane proteome specificity:	Monospecific for 6,000 membrane proteins tested
Species reactivity:	Human (Others untested)
Extracellular epitope:	Yes
Fc modifications:	C-terminal Avitag ¹ , disabled Fc-γ receptor binding ²
Source:	Recombinant CHO expression; purified by Protein A chromatography
Formulation:	Endotoxin Free PBS pH 7.4, sterile-filtered
Concentration:	1 mg/ml

1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc-γ receptor binding site to minimize non-specific antibody binding.

AQP1 TARGET INFORMATION

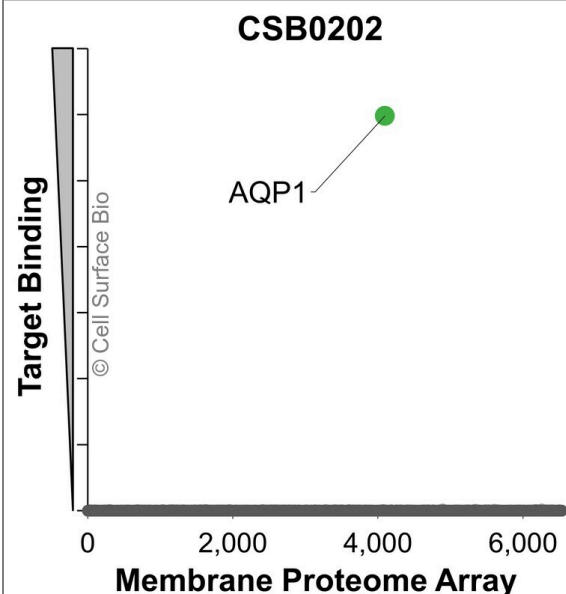
Aquaporin 1 is a member of the aquaporin family of integral membrane channel proteins that facilitate selective water transport across cell membranes. The protein forms homotetramers in the membrane, with each monomer containing six transmembrane helices and two conserved NPA (Asn-Pro-Ala) motifs that contribute to the water-selective pore. AQP1 enables rapid osmotic water movement and is expressed in tissues including kidney, lung, eye, and vascular endothelium. Subcellular localization studies identify AQP1 at the plasma membrane. (NCBI Gene: 358, UniProtKB/Swiss-Prot: Q5R819) Other names: Aquaporin 1 (Colton Blood Group), CHIP28, Aquaporin 1 (Channel-Forming Integral Protein, 28kDa, CO Blood Group), Urine Water Channel, Aquaporin-CHIP

SHIPPING AND STORAGE

Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA

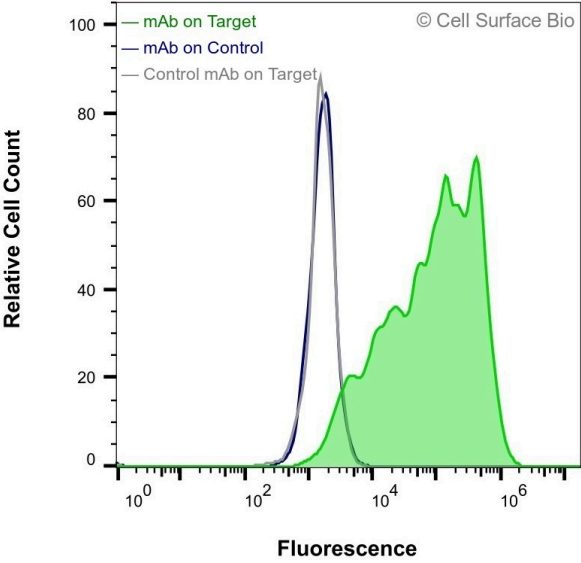
Membrane Proteome Specificity



The specificity of AQP1 Monoclonal Antibody (CSB0202) was tested on the Membrane Proteome Array™ and shown to be specific for AQP1.

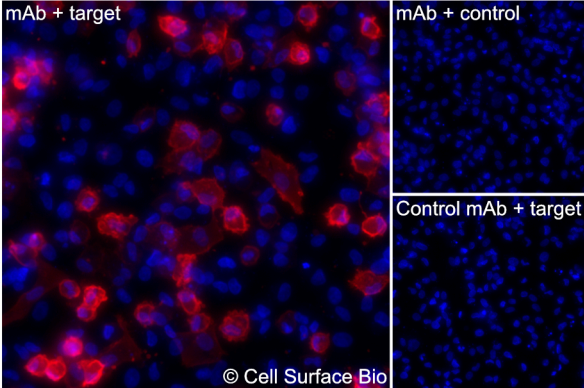
The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed avian cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies and other protein ligands.

Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



JS-1 cells transiently transfected with AQP1 were stained with AQP1 Monoclonal Antibody (CSB0202) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. JS-1 cells transiently transfected with an empty control vector were also stained with AQP1 Monoclonal Antibody (CSB0202) (blue).

Applications	Conditions	Recommended concentration
Immunofluorescence, Extracellular	Fixed 4% paraformaldehyde	1 µg/ml



(Left) JS-1 cells transiently transfected AQP1 were stained with AQP1 Monoclonal Antibody (CSB0202) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with AQP1 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with AQP1 and stained with control MAb.

Applications

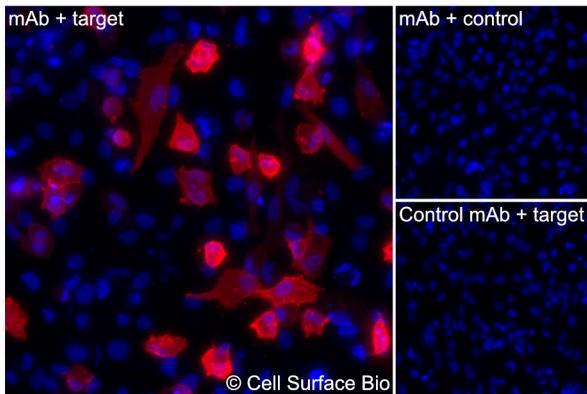
Immunofluorescence, Intracellular

Conditions

Fixed 4% paraformaldehyde,
Permeabilized 0.1% Triton X-100

Recommended concentration

1 µg/ml



(Left) JS-1 cells transiently transfected AQP1 were permeabilized and stained with AQP1 Monoclonal Antibody (CSB0202) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with AQP1 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with {{target}} and stained with control MAb.