

## Aquaporin 4 (AQP4) Antibody

Mouse Monoclonal Antibody [Clone AQP4/3321]

Catalog No	Format	Size
361-MSM1-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
361-MSM1-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
361-MSM1-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

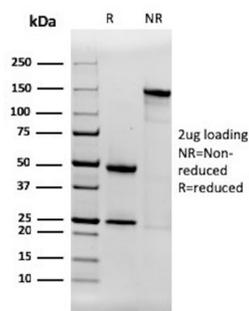
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes
Western Blot (WB)	2-4ug/ml	

### Product Details

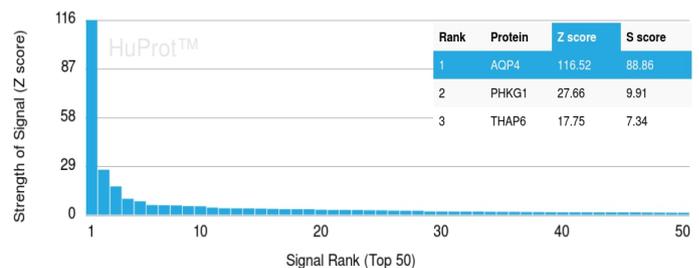
<b>Clone</b>	AQP4/3321
<b>Gene Name</b>	AQP4
<b>Immunogen</b>	Human recombinant AQP4 protein fragment (around aa200-323) (exact sequence is proprietary)
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype / Light Chain</b>	IgG1 / Kappa
<b>Mol. Weight of Antigen</b>	34kDa
<b>Cellular Localization</b>	Basolateral cell membrane, Cell membrane, Cell projection, Endosome membrane, Sarcolemma
<b>Species Reactivity</b>	Human
<b>Positive Control</b>	Human skeletal muscle, small intestine or brain tissue.

\*Optimal dilution for a specific application should be determined.

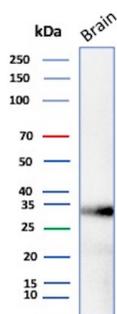
### Product Images for Aquaporin 4 (AQP4) Antibody



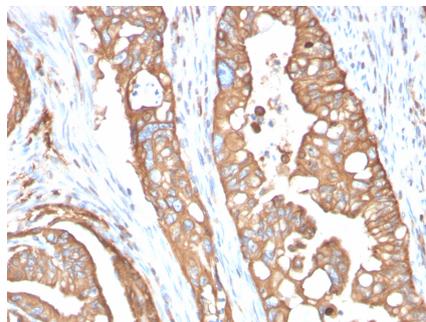
SDS-PAGE Analysis of Purified Aquaporin (AQP4) Mouse Monoclonal Antibody (AQP4/3321). Confirmation of Purity and Integrity of Antibody.



Analysis of Protein Array containing more than 19,000 full-length human proteins using Aquaporin (AQP4) Mouse Monoclonal Antibody (AQP4/3321). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAB) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAB to its intended target. A MAB is considered to be specific to its intended target, if the MAB has an S-score of at least 2.5. For example, if a MAB binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAB to protein X is equal to 29.



Western Blot Analysis of Human Brain tissue lysate using AQP4 Mouse Monoclonal Antibody (AQP4/3321).



Formalin-fixed, paraffin-embedded human small intestine stained with Aquaporin (AQP4) Mouse Monoclonal Antibody (AQP4/3321). HIER: Tris/EDTA, pH9.0, 45min. 2 °: HRP-polymer, 30min. DAB, 5min.

### Specificity & Comments

In skeletal muscle, AQP4 (aquaporin 4 also known as mercurial insensitive water channel), localizes to the sarcolemma of fast-twitch muscle fibers. Aquaporins (AQPs) are a large family of integral membrane water transport channel proteins that facilitate the transport of water through the cell membrane. This function is conserved in animals, plants and bacteria. Many isoforms of aquaporin have been identified in mammals, designated AQP0 through AQP10. Aquaporins are widely distributed and it is not uncommon for more than one type of AQP to be present in the same cell. Although most aquaporins are only permeable to water, AQP3, AQP7, AQP9 and one of the two AQP10 transcripts are also permeable to urea and glycerol. AQP2 is the only water channel that is activated by vasopressin to enhance water reabsorption in the kidney collecting duct. Aquaporins are involved in renal water absorption, generation of pulmonary secretions, lacrimation and the secretion and reabsorption of cerebrospinal fluid and aqueous humor.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

### Research Areas

Neuroscience