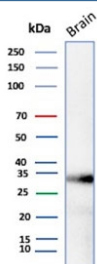


## Aquaporin 4 Antibody / AQP4 [clone AQP4/3321] (V5748)

Catalog No.	Formulation	Size
V5748-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5748-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5748SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

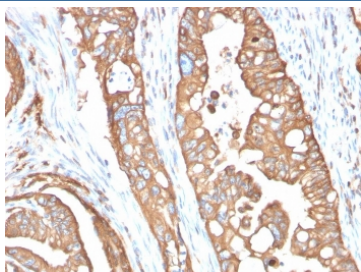
[Bulk quote request](#)

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG1, kappa
<b>Clone Name</b>	AQP4/3321
<b>Purity</b>	Protein G affinity
<b>UniProt</b>	P55087
<b>Localization</b>	Cell membrane, cytoplasm
<b>Applications</b>	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
<b>Limitations</b>	This Aquaporin 4 antibody is available for research use only.

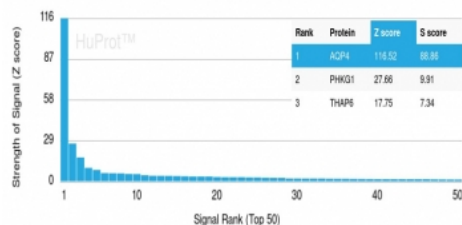


Western blot testing of human brain tissue lysate with Aquaporin 4 antibody (clone AQP4/3321). Observed molecular weight: 35~45kDa depending on glycosylation level.

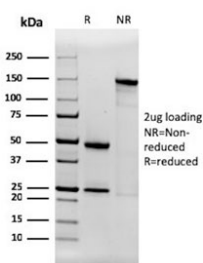




IHC staining of FFPE human small intestine tissue with Aquaporin 4 antibody (clone AQP4/3321). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Aquaporin 4 antibody (clone AQP4/3321). These results demonstrate the foremost specificity of the AQP4/3321 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free Aquaporin 4 antibody (clone AQP4/3321) as confirmation of integrity and purity.

## Description

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.

## Application Notes

Optimal dilution of the Aquaporin 4 antibody should be determined by the researcher.

## Immunogen

A human partial recombinant protein (from within amino acids 200-323) was used as the immunogen for the Aquaporin 4 antibody.

## Storage

Aliquot the Aquaporin 4 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.



