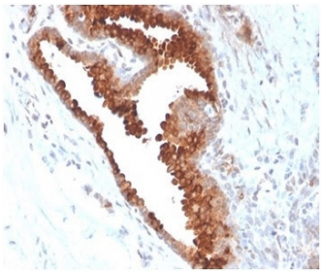
Aquaporin 4 Antibody / AQP4 [clone AQP4/3324] (V9663)

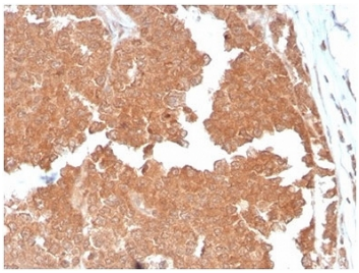
Catalog No.	Formulation	Size
V9663-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9663-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9663SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

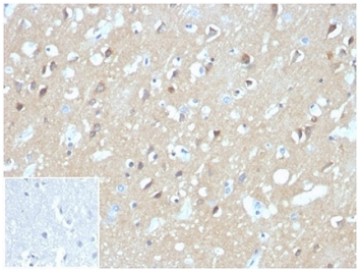
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	AQP4/3324
Purity	Protein A/G affinity
UniProt	P55087
Localization	Membrane, cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Aquaporin 4 antibody is available for research use only.



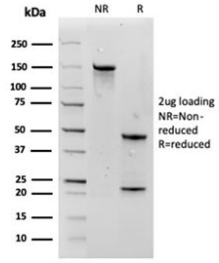
IHC staining of FFPE human small intestine with Aquaporin 4 antibody (clone AQP4/3324). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



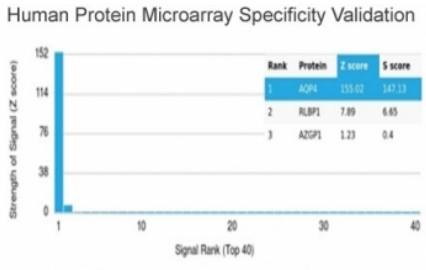
IHC staining of FFPE human small intestine tissue with Aquaporin 4 antibody (clone AQP4/3324). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human brain tissue with Aquaporin 4 antibody (clone AQP4/3324). Negative control inset: PBS instead of primary antibody to control for secondary binding.



SDS-PAGE analysis of purified, BSA-free Aquaporin 4 antibody (clone AQP4/3324) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Aquaporin 4 antibody (clone AQP4/3324). These results demonstrate the foremost specificity of the AQP4/3324 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.

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 AQP0through 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 portion of amino acids 200-323 from the human protein was used as the immunogen for the Aquaporin 4 antibody.

Storage

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