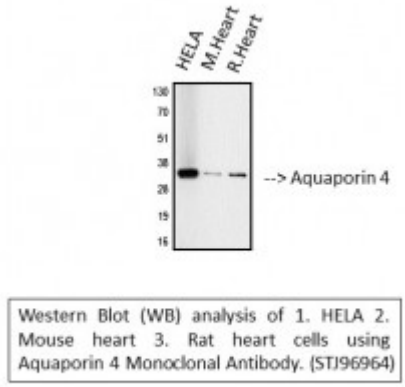
Anti-Aquaporin 4 antibody



Western Blot (WB) analysis of 1. HELA 2. Mouse heart 3. Rat heart cells using Aquaporin 4 Monoclonal Antibody. (STJ96964)

Description	Aquaporin 4 is a protein encoded by the AQP4 gene which is approximately 34,8 kDa. Aquaporin 4 is localised to the cell membrane. It is involved in aquaporin-mediated transport, vasopressin-regulated water reabsorption and transport of glucose, bile salts, metal ions and amine compounds. This protein falls under the aquaporin family of intrinsic membrane proteins that function as water-selective channels in the plasma membranes of many cells. This protein is the predominant aquaporin found in brain and has an important role in brain water homeostasis. It acts as an osmoreceptor which regulates body water balance and mediates water flow within the central nervous system. Aquaporin 4 is expressed in the cells of the nervous system, lung, eye, muscle and blood. Mutations in the AQP4 gene may result in brain oedema. STJ96964 was developed from clone 4H1 and was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen. This primary antibody detects endogenous Aquaporin 4 proteins.

Model	STJ96964
Host	Mouse
Reactivity	Human, Mouse, Rat
Applications	IF, WB
Immunogen	Synthetic Peptide
Gene ID	361
Gene Symbol	AQP4
Dilution range	WB 1:1000IF 1:100-200
Specificity	The antibody detects endogenous Aquaporin 4 proteins.

Tissue Specificity	Brain - muscle >> heart, kidney, lung, and trachea.
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Clone ID	4H1
Note	For Research Use Only (RUO).
Protein Name	Aquaporin-4 AQP-4 Mercurial-insensitive water channel MIWC WCH4
Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:637OMIM:600308
Alternative Names	Aquaporin-4 AQP-4 Mercurial-insensitive water channel MIWC WCH4
Function	Forms a water-specific channel. Osmoreceptor which regulates body water balance and mediates water flow within the central nervous system.
Sequence and Domain Family	Aquaporins contain two tandem repeats each containing three membrane-spanning domains and a pore-forming loop with the signature motif Asn-Pro-Ala (NPA).
Cellular Localization	Membrane. Multi-pass membrane protein.
Post-translational Modifications	Phosphorylation by PKC at Ser-180 reduces conductance by 50%. Phosphorylation by PKG at Ser-111 in response to glutamats increases conductance by 40% .