



Rabbit Anti-Aquaporin 2 antibody

SL0261R

Product Name:	Aquaporin 2
Chinese Name:	水Channel protein-2抗体
Alias:	ADH water channel; AQP 2; AQP-2; AQP CD; AQP2; AQPCD; Aquaporin 2 collecting duct; Aquaporin CD; Aquaporin2; Aquaporine 2; Collecting duct water channel protein; MGC34501; Water channel protein for renal collecting duct; WCH CD; WCHCD.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	30kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human AQP2:101-200/271<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes a water channel protein located in the kidney collecting tubule. It belongs to the MIP/aquaporin family, some members of which are clustered together on chromosome 12q13. Mutations in this gene have been linked to autosomal dominant, and recessive forms of nephrogenic diabetes insipidus.

Function:

Forms a water-specific channel that provides the plasma membranes of renal collecting duct with high permeability to water, thereby permitting water to move in the direction of an osmotic gradient.

Subcellular Location:

Apical cell membrane. Cytoplasmic vesicle membrane. Shuttles from vesicles to the apical membrane.

Tissue Specificity:

Expressed in renal collecting tubules.

Post-translational modifications:

Ser-256 phosphorylation is necessary and sufficient for expression at the apical membrane. Endocytosis is not phosphorylation-dependent.

DISEASE:

Defects in AQP2 are the cause of diabetes insipidus nephrogenic autosomal (ANDI) [MIM:125800]; also known as diabetes insipidus nephrogenic type 2. ANDI is caused by the inability of the renal collecting ducts to absorb water in response to arginine vasopressin. It is characterized by excessive water drinking (polydypsia), excessive urine excretion (polyuria), persistent hypotonic urine, and hypokalemia. Inheritance can be autosomal dominant or recessive.

Similarity:

Belongs to the MIP/aquaporin (TC 1.A.8) family.

SWISS:

P41181

Gene ID:

359

Database links:

[Entrez Gene: 359](#) Human

[Entrez Gene: 11827](#) Mouse

[Entrez Gene: 25386](#) Rat

[Omim: 107777](#) Human

[SwissProt: P41181](#) Human

[SwissProt: P56402](#) Mouse

[SwissProt: P34080](#) Rat

[Unigene: 130730](#) Human

[Unigene: 20206](#) Mouse

[Unigene: 90076](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Channel protein (Channel Protein)

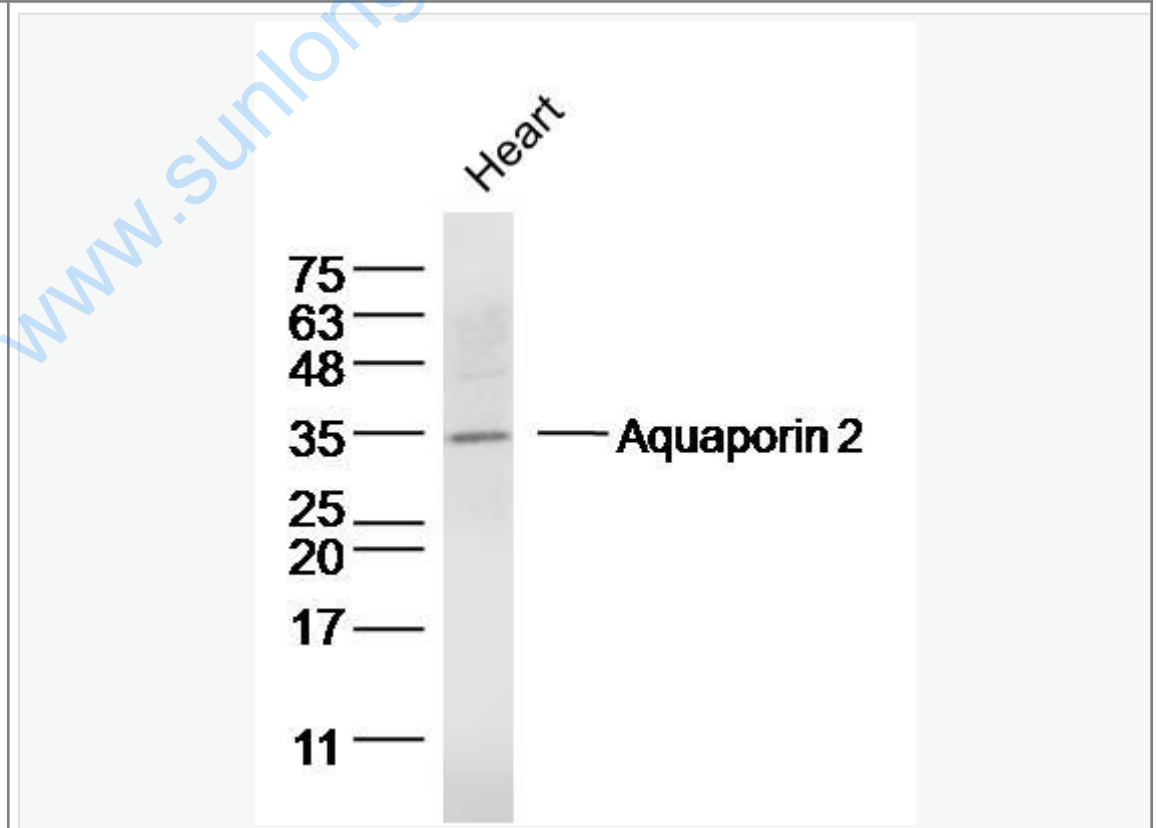
水Channel protein-

2特异地存在于肾脏集合管, 受血管加压素调节。有研究证明, AQP2(水Channel protein-2)在Diabetes肾脏集合管表达增强。

在1型Diabetes动物模型的水转运中尤其有意义。研究认为: AQP-2

奠定了Diabetes大鼠肾脏对水重吸收的基础, 而且发现1型Diabetes病人的 AQP-2随血糖控制而减少。

Picture:



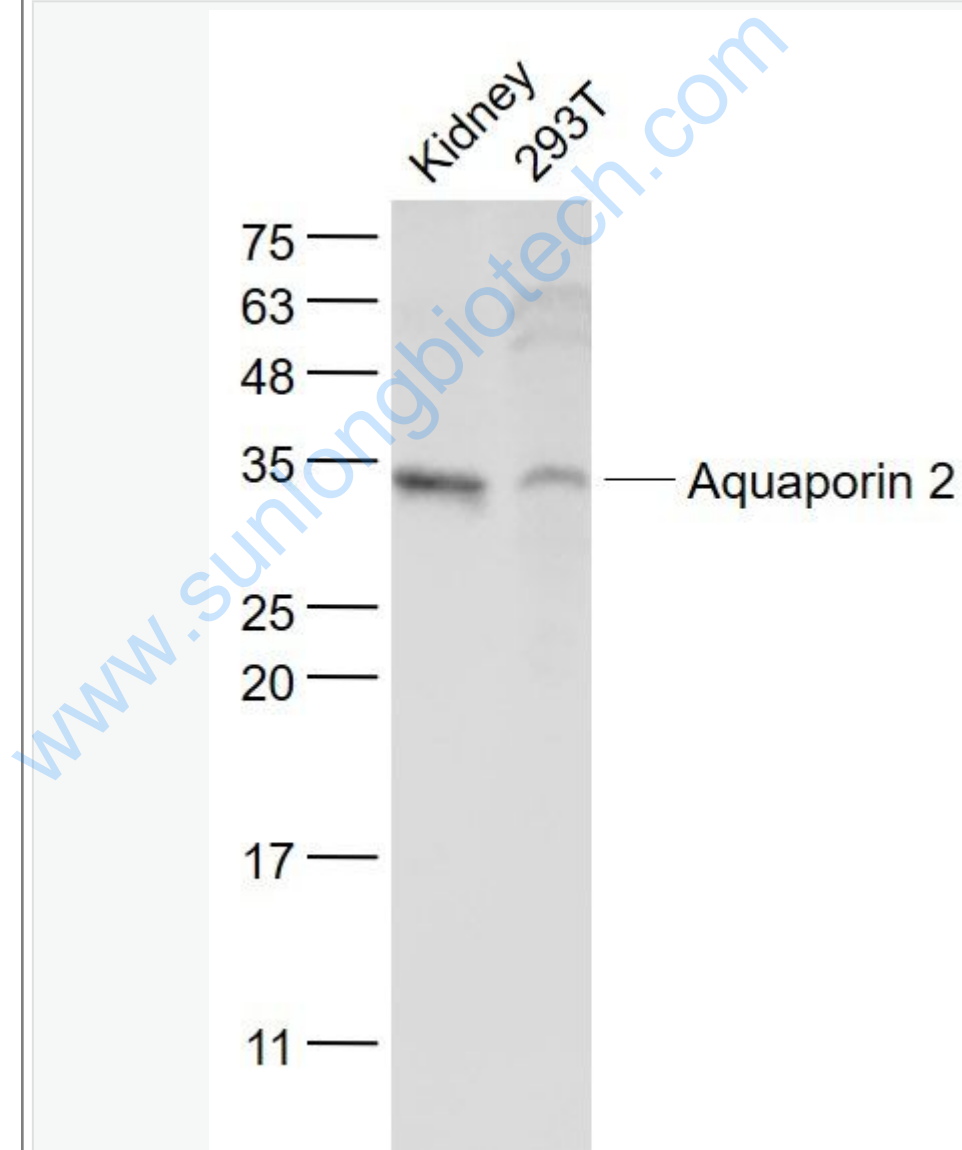
Sample: Heart (Mouse) Lysate at 40 ug

Primary: Anti-Aquaporin 2 (SL0261R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 30 kD

Observed band size: 35 kD



Sample:

Kidney (Mouse) Lysate at 40 ug

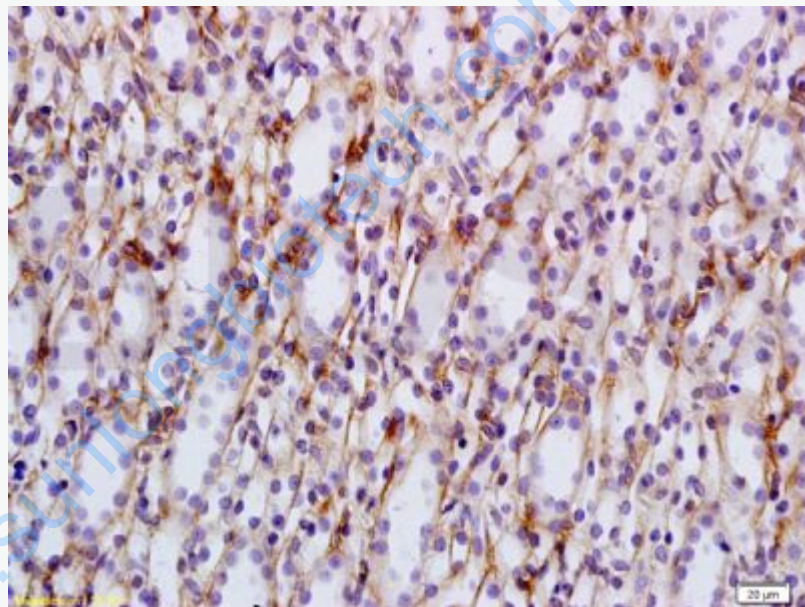
293T(Human) Cell Lysate at 30 ug

Primary: Anti- Aquaporin 2 (SL0261R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 30 kD

Observed band size: 32 kD



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-AQP-2 Polyclonal Antibody, Unconjugated(SL0261R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

