

# Anti-Aquaporin 2

## Catalog# SPC-503D

Size: 100µl

PO Box 55036, Cadboro Bay  
3825 Cadboro Bay Road,  
Victoria, BC, V8N 4G0, Canada

This product is for *in vitro* research use only and is not intended for use in humans or animals

# StressMarq

## Biosciences Inc.

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Product	Rabbit anti-aquaporin 2 antibody; polyclonal
Clone	N/A
Immunogen	C-terminal peptide (Rat)
Host and Subclass	Rabbit polyclonal
Cited Applications	WB, IF
Specificity	Detects ~28.8kDa. Glycosylated bands ~35-50kDa.
Species cross-reactivity	Human, Mouse, Rat. Other species not yet tested.
Format	Affinity Purified.
Concentration and working dilution	1mg/ml; WB dilution 1:1000-4000; IF 1:400
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

### Scientific Background

Aquaporins selectively conduct water molecules in and out of the cell, while preventing the passage of ions and other solutes. Known as water channels, they are integral membrane pore proteins (1, 2).

Aquaporin 2 is the vasopressin-regulated water channel of the apical membrane of collecting duct cells. It is located in kidney epithelial cells and usually lies dormant in intracellular vesicle membranes. When it is needed vasopressin binds to the cell surface vasopressin receptor, activating a signaling pathway that cause AQP2 containing vesicles to fuse with the plasma membrane so the AQP2 can be used by the cell (3). Defects in AQP2 area cause of an autosomal dominant form of nephrogenic diabetes insipidus (NDI) (4).

### Selected References

1. Gonen T., Walz T. (2006) Q. Rev. Biophys. 39(4): 361-396.
2. Knepper M.A. (1994) Proc Natl. Acad Sci. USA. 91(14): 6255-6258.
3. Lodish H.F. (2008) Molecular Cell Biology. New York: W.H. Freeman. Print. 445.
4. [www.vivo.colostate.edu/hbooks/molecules/aquaporins.html](http://www.vivo.colostate.edu/hbooks/molecules/aquaporins.html)

### Certificate of Analysis

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0.5 µg/mL of SPC-503 was sufficient for detection of aquaporin 2 in 10µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

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# Material Safety Data Sheet

## Anti-Aquaporin 2 (Polyclonal Antibody) SPC-503

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

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### Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
None		

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### Physical Data

This product consists of whole rabbit serum shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

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### Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

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### Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

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### Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

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### Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

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### First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.