Product Informatiion Sheet

# Polyclonal Anti- Aquaporin 4, *AQP4* (Magnetic Bead Conjugate)

**Catalogue No.** PA1220-M

**Lot No.** 09C01

**Ig type:** rabbit IgG1

**Size:** 100µg/Vial

**Specificity**

Human, mouee, rat.

No cross reactivity with other proteins.

**Recommended application**

*Immunoprecipitation(IP)*

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminal of human AQP4, identical to the related rat and mouse sequence.

**Purification**

Immunogen affinity purified

**Contents**

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg $NaN_3$.

**Storage**

Store at 4˚C for frequent use.

**Description:**

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

## BACKGROUND

Aquaporin 4 is found in the basolateral cell membrane of principal collecting duct cells and provide a pathway for water to exit these cells.[1] The gene of AQP4 is mapped to 18q11.2-q12.1.Similar to other aquaporins, the AQP4 gene is composed of 4 exons encoding 127, 55, 27, and 92 amino acids separated by introns of 0.8, 0.3, and 5.2 kb. Unlike other aquaporins, an alternative coding initiation sequence (designated exon 0) was located 2.7 kb upstream of exon 1. When spliced together, M1 and the subsequent 10 amino acids are encoded by exon 0; the next 11 amino acids and M23 are encoded by exon 1.[2] AQP4 is expressed in astrocytes and is upregulated by direct insult to the central nervous system.[3] AQP4 is the predominant water channel in the brain and has an important role in brain water homeostasis. It is abundant in mammalian brain and is concentrated in astrocytic foot processes at the blood-brain barrier.[4, 5]

## *REFERENCE*


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5. Lennon, V. A.; Kryzer, T. J.; Pittock, S. J.; Verkman, A. S.; Hinson, S. R. : IgG marker of optic-spinal multiple sclerosis binds to the aquaporin-4 water channel. *J. Exp. Med.* 202: 473-477, 2005.