

Product Information Sheet

Polyclonal Anti-Acetylcholine receptor (Nicotinic, $\alpha 1$), **ACHR $\alpha 1$**

Catalogue No. PA1002

Lot No. 03A01

Ig type: rabbit IgG

Size: 100 μ g/vial

Specificity

Human, mouse, rat, rabbit.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)

Manufactured by

Boster Biological Technology

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of acetylcholine receptor $\alpha 1$, identical to the related mouse and rat sequence.

Purity

Immunogen affinity purified.

Application

Western blot

At 1-2 μ g/ml with the appropriate system to detect ACHR $\alpha 1$ in cells and tissues.

Immunohistochemistry(P)

At 1-2 μ g/ml to detect ACHR $\alpha 1$ in formalin fixed and paraffin embedded tissues.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500 μ g/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

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Relative detection systems

Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IH(P).

BACKGROUND

The acetylcholine receptor of muscle, like the nicotinic acetylcholine receptor of the Torpedo electric organ, has 5 subunits of 4 different types: 2 alpha and 1 each of beta, gamma, and delta subunits. The alpha subunit exists in 2 isoforms. The protein-coding sequence of the human ACHRA gene is divided into 9 exons that correspond to different structural and functional domains of the precursor molecule. Human nicotinic acetylcholine receptor genes alpha is assigned to chromosome 2. Mutation of the acetylcholine receptor alpha subunit causes a slow-channel myasthenic syndrome by enhancing agonist binding affinity.

REFERENCE

1. Beeson, D.; Jeremiah, S.; West, L. F.; Povey, S.; Newsom-Davis, J. : Assignment of the human nicotinic acetylcholine receptor genes: the alpha and delta subunit genes to chromosome 2 and the beta subunit gene to chromosome 17. *Ann. Hum. Genet.* 54: 199-208, 1990.
2. Localization of the gene encoding the alpha-subunit of the acetylcholine receptor on chromosome 2 of the mouse. *Cytogenet. Cell Genet.* 52: 102-103, 1989.
- 3 Sine, S. M.; Ohno, K.; Bouzat, C.; Auerbach, A.; Milone, M.; Pruitt, J. N.; Engel, A. G. : Mutation of the acetylcholine receptor alpha subunit causes a slow-channel myasthenic syndrome by enhancing agonist binding affinity. *Neuron* 15: 229-239, 1995.