

Datasheet for ABIN968298

anti-CHRNA1 antibody (AA 332-457)**2** Images**5** Publications[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	CHRNA1
Binding Specificity:	AA 332-457
Reactivity:	Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CHRNA1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Rat Acetylcholine Receptor alpha aa. 332-457
Clone:	26-Acetylcholine Receptor alpha
Isotype:	IgG2a
Cross-Reactivity:	Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	CHRNA1
Alternative Name:	Acetylcholine Receptor alpha (CHRNA1 Products)
Background:	Acetylcholine is an amine neurotransmitter at the neuromuscular junction. It is released from the presynaptic membrane of a cholinergic synapse into the synaptic cleft. It diffuses across the cleft and binds acetylcholine receptors (AChR) on the postsynaptic membrane. Receptor binding induces postsynaptic membrane depolarization and the generation of an action potential that produces effects such as muscle contraction. The AChR is a 250kDa pentameric complex of four transmembrane subunits in a stoichiometry of alpha2betagammadelta. In response to ligand binding, all subunits participate in the formation of an integral cation channel. However, the acetylcholine binding site is primarily within the alpha subunit. Myasthenia gravis (MG) is an autoimmune condition in which AchR levels are decreased. Autoantibodies bind and crosslink the AchRs leading to their internalization and degradation. This results in a decreased number of functional AChRs. Patients develop muscular weakness and some voluntary muscle fatigue. However, development of MG is also affected by genetic factors. One of the allelic forms of the AChRalpha gene appears to significantly contribute to MG susceptibility.
Molecular Weight:	49 kDa
Pathways:	Skeletal Muscle Fiber Development

Application Details

Restrictions:	For Research Use only
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Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

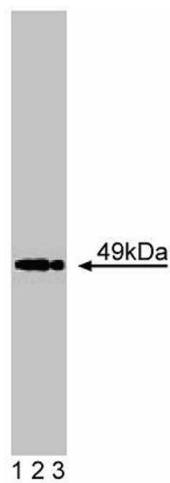
Handling

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

Publications

- Product cited in:
- Kincer, Uittenbogaard, Dressman, Guerin, Febbraio, Guo, Smart: "Hypercholesterolemia promotes a CD36-dependent and endothelial nitric-oxide synthase-mediated vascular dysfunction." in: **The Journal of biological chemistry**, Vol. 277, Issue 26, pp. 23525-33, (2002) ([PubMed](#)).
- Spencer, Guyon, Sorimachi, Potts, Richard, Herasse, Chamberlain, Dalkilic, Kunkel, Beckmann: "Stable expression of calpain 3 from a muscle transgene in vivo: immature muscle in transgenic mice suggests a role for calpain 3 in muscle maturation." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 99, Issue 13, pp. 8874-9, (2002) ([PubMed](#)).
- Garchon, Djabiri, Viard, Gajdos, Bach: "Involvement of human muscle acetylcholine receptor alpha-subunit gene (CHRNA) in susceptibility to myasthenia gravis." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 91, Issue 11, pp. 4668-72, (1994) ([PubMed](#)).
- Schröder, Reinhardt-Maelicke, Schratzenholz, McLane, Kretschmer, Conti-Tronconi, Maelicke: "Monoclonal antibodies FK1 and WF6 define two neighboring ligand binding sites on Torpedo acetylcholine receptor alpha-polypeptide." in: **The Journal of biological chemistry**, Vol. 269, Issue 14, pp. 10407-16, (1994) ([PubMed](#)).
- Tsim, Greenberg, Rimer, Randall, Salpeter: "Transcripts for the acetylcholine receptor and acetylcholine esterase show distribution differences in cultured chick muscle cells." in: **The Journal of cell biology**, Vol. 118, Issue 5, pp. 1201-12, (1992) ([PubMed](#)).



Western Blotting

Image 1. Western blot analysis of Acetylcholine Receptor alpha on BC3H1 lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of Acetylcholine Receptor alpha.

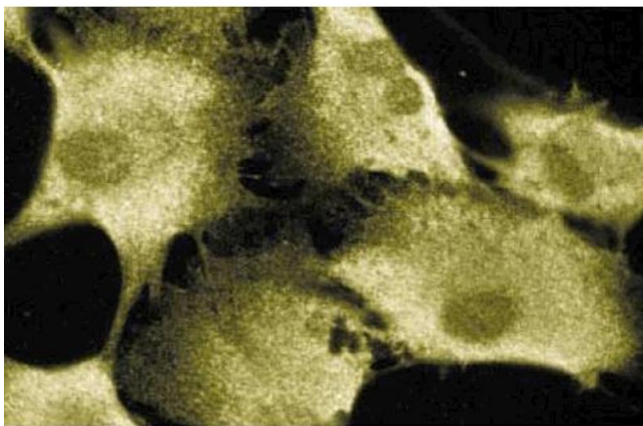


Image 2. BC3H1