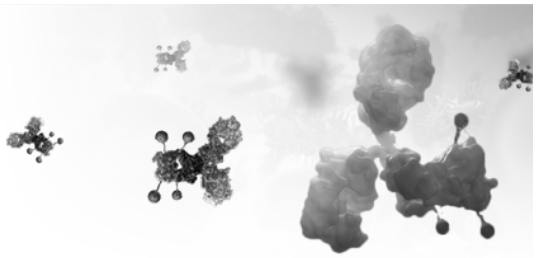

Mouse anti-Rat Acetylcholine Receptor α monoclonal antibody, clone 37 (CABT-B9172)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Rat Acetylcholine Receptor α aa. 332-457
Isotype	IgG2a
Source/Host	Mouse
Species Reactivity	Mouse, Rat
Clone	37
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 μg/ml
Size	50 μg, 150 μg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	Acetylcholine is an amine neurotransmitter at the neuromuscular junction. It is released from

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	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 α2βγδ. 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 α 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 AChRα gene appears to significantly contribute to MG susceptibility.
Keywords	AChR; acetylcholine receptor; AChRs

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