

# Acetylcholine

Acetylcholine (ACh) is an organic chemical that functions in the brain and body of many types of animals (and humans) as a neurotransmitter—a chemical message released by nerve cells to send signals to other cells, such as neurons, muscle cells and gland cells. Its name is derived from its chemical structure: it is an ester of acetic acid and choline. Parts in the body that use or are affected by acetylcholine are referred to as cholinergic. Substances that interfere with acetylcholine activity are called anticholinergics.

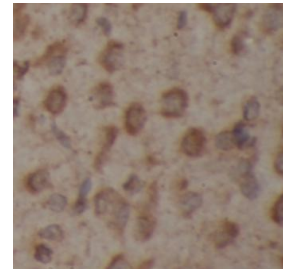
Acetylcholine is the neurotransmitter used at the neuromuscular junction—in other words, it is the chemical that motor neurons of the nervous system release in order to activate muscles. This property means that drugs that affect cholinergic systems can have very dangerous effects ranging from paralysis to convulsions.

Acetylcholine is also a neurotransmitter in the autonomic nervous system, both as an internal transmitter for the sympathetic nervous system and as the final product released by the parasympathetic nervous system. Acetylcholine is the primary neurotransmitter of the parasympathetic nervous systems.

Cat. No	Antigen	Host	Clone	Isotype	Applications	Species	Q.ty
AB-84167	Acetylcholinesterase/ACHE	Rb	POLY	IgG	WB, IHC,IF, FC	Hu, Ms	100 ul
MAB-10796	Choline Acetyltransferase (ChAT)	Ms	P1F6	IgG1	IF, WB, ICC, IHC(P)	Ms, Rt, Hu	100 ug
AB-17911	Choline Acetyltransferase (ChAT)	Rb	POLY	IgG	WB, ICC, IHC(P), IHC(F), ELISA	Hu, Ms, Rt	50 ug
AB-83521	Choline Acetyltransferase (ChAT)	Rb	POLY	IgG	WB, IF, IHC(P), IHC(F)	Hu, Ms, Rt	50 ul
AB-10062	Choline Acetyltransferase (ChAT)	Ch	POLY	IgG	ICC, IHC, WB	Hu, Ms	100 ul
AB-83834	Choline Acetyltransferase (ChAT)	Gt	POLY	IgG	WB, IHC(F), ELISA	Ms, Rt	100 ug
AB-84238	Choline Acetyltransferase (ChAT)	Rb	POLY	IgG	WB, IHC(F), IHC(P), IP, IF, ICC, ELISA	Hu, Ms, Rt	100 ug

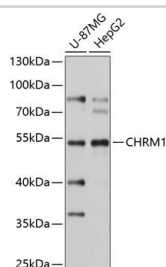


**AB-83834 CHAT**  
(1µg/ml) staining of Mouse (A) and Rat (B) Brain lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

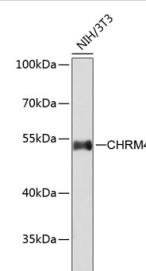


**AB-84238 CHAT**  
Immunohistochemistry of paraffin-embedded human brain tissue slide using CHAT Antibody at dilution of 1:200 heat mediated antigen retrieved with Tris-EDTA buffer(pH9).

AB-11204	Cholinergic receptor, muscarinic 1 (CHRM1)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms, Rt	100 ug
AB-11204	Cholinergic receptor, muscarinic 1 (CHRM1)	Rb	POLY	IgG	WB, ICC, IHC	Hu, Ms, Rt	100 ul
AB-82079	Cholinergic receptor, muscarinic 2 (CHRM2)	Rb	POLY	IgG	WB,IF	Hu, Ms,	100 ug
AB-11197	Cholinergic receptor, muscarinic 2 (CHRM2)	Rb	POLY	IgG	WB, ICC, IHC, ELISA	Hu, Ms, Rt	100 ul
AB-83511	Cholinergic receptor, muscarinic 3 (CHRM3)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms, Rt	100 ug
AB-11198	Cholinergic receptor, muscarinic 3 (CHRM3)	Rb	POLY	IgG	WB, ICC, IHC, ELISA	Hu, Ms, Rt	100 ul
AB-83512	Cholinergic receptor, muscarinic 4 (CHRM4)	Rb	POLY	IgG	WB	Hu, Ms, Rt	100 ug
AB-11199	Cholinergic receptor, muscarinic 4 (CHRM4)	Rb	POLY	IgG	WB, ICC, IHC, ELISA	Hu, Ms, Rt	100 ul

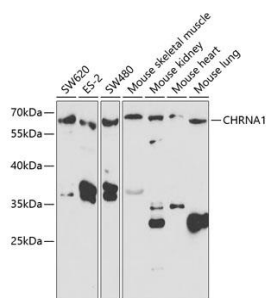


**AB-11204 CHRM1**  
Western blot analysis of extracts of various cell lines, using CHRM1 antibody.

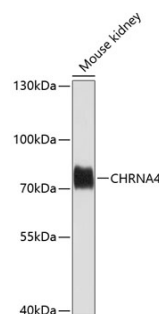


**AB-83512 CHRM4**  
Western blot analysis of extracts of NIH/3T3 cells, using CHRM4 antibody

Cat. No	Antigen	Host	Clone	Isotype	Applications	Species	Q.ty
AB-83513	Cholinergic receptor, muscarinic 5 (CHRM5)	Rb	POLY	IgG	WB, IHC(P),IF	Hu, Ms	100 ug
AB-11200	Cholinergic receptor, muscarinic 5 (CHRM5)	Rb	POLY	IgG	WB, ICC, IHC, ELISA	Hu, Ms, Rt	100 ul
AB-90214	Cholinergic receptor, nicotinic A1 (CHRNA1)	Rb	POLY	IgG	WB, IHC(P), IF	Hu, Ms, Rt	100 ug
AB-83516	Cholinergic receptor, nicotinic A2 (CHRNA2)	Rb	POLY	IgG	WB,	Rt	100 ug
AB-10399	Cholinergic receptor, nicotinic A3 (CHRNA3)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms, Rt	100 ug
AB-84249	Cholinergic receptor, nicotinic A3 (CHRNA3)	Rb	POLY	IgG	WB, IF, ICC	Hu, Ms, Rt	100 ul
AB-11685	Cholinergic receptor, nicotinic A4 (CHRNA4)	Rb	POLY	IgG	WB, ELISA, ICC	Hu, Ms, Rt	100 ul
AB-83517	Cholinergic receptor, nicotinic A4 (CHRNA4)	Rb	POLY	IgG	WB,	Ms	100 ug
AB-10400	Cholinergic receptor, nicotinic A5 (CHRNA5)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms, Rt	100 ug
AB-84250	Cholinergic receptor, nicotinic A5 (CHRNA5)	Rb	POLY	IgG	WB, IF, ICC	Hu, Ms, Rt	100 ul
AB-83518	Cholinergic receptor, nicotinic A6 (CHRNA6)	Rb	POLY	IgG	WB,	Hu, Ms	100 ug
AB-11686	Cholinergic receptor, nicotinic A7 (CHRNA7)	Rb	POLY	IgG	WB, IF, ICC	Hu, Ms, Rt	100 ul
AB-10408	Cholinergic receptor, nicotinic A7 (CHRNA7)	Rb	POLY	IgG	WB	Hu, Ms, Rt	100 ug



**AB-90214 CHRNA1**  
Western blot analysis of extracts of various cell lines, using CHRNA1 antibody at 1:1000 dilution.



**AB-83517 CHRNA4**  
Western blot analysis of extracts of mouse kidney, using CHRNA4 antibody at 1:1000 dilution.

AB-10706	Cholinergic receptor, nicotinic A9 (CHRNA9)	Rb	POLY	IgG	WB	Hu, Ms, Rt	100 ug
AB-83519	Cholinergic receptor, nicotinic A10 (CHRNA10)	Rb	POLY	IgG	WB,	Hu	100 ug
AB-82370	Cholinergic receptor, nicotinic B1 (CHRNB1)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms, Rt	100 ug
AB-11687	Cholinergic receptor, nicotinic B2 (CHRNB2)	Rb	POLY	IgG	WB, IF, ICC	Hu, Ms, Rt	100 ul
AB-12084	Cholinergic receptor, nicotinic B2 (CHRNB2)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms,	100 ug
AB-10728	Cholinergic receptor, nicotinic B3 (CHRNB3)	Rb	POLY	IgG	WB, IHC(P)	Hu, Ms, Rt	100 ug
AB-84251	Cholinergic receptor, nicotinic B3 (CHRNB3)	Rb	POLY	IgG	WB, IF, ICC	Hu, Ms, Rt	100 ul
AB-83520	Cholinergic receptor, nicotinic B4 (CHRNB4)	Rb	POLY	IgG	WB	Hu	100 ug
AB-84252	Cholinergic receptor, nicotinic B4 (CHRNB4)	Rb	POLY	IgG	WB, IF, ICC	Hu, Ms, Rt	100 ul
AB-10405	Cholinergic receptor, nicotinic D (CHRND)	Rb	POLY	IgG	WB, IHC	Hu, Ms	100 ug
AB-10705	Cholinergic receptor, nicotinic E (CHRNE)	Rb	POLY	IgG	WB	Hu, Ms, Rt	100 ug
AB-J064	Cholinergic receptor, nicotinic G (CHRNG)	Rb	POLY	IgG	WB, ELISA	Hu, Ms, Rt	100µl

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