

Cat.No. 216 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: yes IHC: 1 : 100 IHC-P/FFPE: not tested yet
Clone	62-2E8
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 501 to 580 from rat ChT (UniProt Id: Q9JMD7)
Epitop	Epitop: AA 501 to 580 from rat ChT (UniProt Id: Q9JMD7)
Reactivity	Reacts with: human (Q9GZV3), rat (Q9JMD7), mouse (Q8BGY9). Other species not tested yet.
Specificity	Specific for the high affinity choline transporter.
Remarks	ChT aggregates after boiling, making it necessary to run SDS-PAGE with non-boiled samples.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Acetylcholine (ACh) functions as a neurotransmitter in both the central and peripheral nervous systems of all vertebrates, and is the principle neurotransmitter used at the neuromuscular junction. This neurotransmitter is synthesized from choline (Ch) and acetyl-coenzyme A by choline acetyltransferase (ChAT). For this pathway choline is required, which neurons acquire through high-affinity **choline transporters (ChTs)**. ChT have been found on the presynaptic membrane but also on ACh containing synaptic vesicles.

Selected References SYSY Antibodies

Vesicular acetylcholine transporter (VACHT) over-expression induces major modifications of striatal cholinergic interneuron morphology and function.

Janickova H, Prado VF, Prado MAM, El Mestikawy S, Bernard V
Journal of neurochemistry (2017) : . **IHC; tested species: mouse**

Aberrant trafficking of the high-affinity choline transporter in AP-3-deficient mice.

Misawa H, Fujigaya H, Nishimura T, Moriwaki Y, Okuda T, Kawashima K, Nakata K, Ruggiero AM, Blakely RD, Nakatsu F, Ohno H, et al.

The European journal of neuroscience (2008) 27(12): 3109-17. **WB**

Selected General References

Nerve growth factor regulates the expression of the cholinergic locus and the high-affinity choline transporter via the Akt/PKB signaling pathway.

Madziar B, Shah S, Brock M, Burke R, Lopez-Coviella I, Nickel AC, Cakal EB, Blusztajn JK, Berse B
Journal of neurochemistry (2008) 107(5): 1284-93.

Regulated recycling and plasma membrane recruitment of the high-affinity choline transporter.

Ribeiro FM, Pinthong M, Black SA, Gordon AC, Prado VF, Prado MA, Rylett RJ, Ferguson SS
The European journal of neuroscience (2007) 26(12): 3437-48.

The choline transporter resurfaces: new roles for synaptic vesicles?

Ferguson SM, Blakely RD
Molecular interventions (2004) 4(1): 22-37.

Vesicular localization and activity-dependent trafficking of presynaptic choline transporters.

Ferguson SM, Savchenko V, Apparsundaram S, Zwick M, Wright J, Heilman CJ, Yi H, Levey AI, Blakely RD
The Journal of neuroscience : the official journal of the Society for Neuroscience (2003) 23(30): 9697-709.

Purification and reconstitution of the high affinity choline transporter.

Knipper M, Kahle C, Breer H
Biochimica et biophysica acta (1991) 1065(2): 107-13.