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Product Data Sheet

AB-17911	Rabbit antibody to human, rat, mouse ChAT (choline O-acetyltransferase)
Unit size	50 µg aff. Pur. 50 µl Serum
Immunogen	A synthetic peptide as a part of human, rat and mouse ChAT (choline O-acetyltransferase) conjugated to immunogenic carrier protein was used as the immunogen.
Background	<p>Cholinergic systems are implicated in numerous neurologic functions. Alteration in some cholinergic neurons may account for the disturbances of Alzheimer disease. The protein encoded by this gene synthesizes the neurotransmitter acetylcholine. Alternative splice variants have been found that contain alternative 5' untranslated exons. Three of the four described splice variants encode identical 69 kDa proteins while one variant encodes both the 69 kDa and a larger 82 kDa protein. Choline acetylase catalyzes the reversible synthesis of acetylcholine (ACh) from acetyl CoA and choline at cholinergic synapses. CATALYTIC ACTIVITY: Acetyl-CoA + choline = CoA + O-acetylcholine. Defects in CHAT are the cause of familial infantile myasthenia gravis 2 (FIMG2); also known as CMS-EA. FIMG2 patients have myasthenic symptoms since birth or early infancy, negative tests for anti-AChR antibodies, and abrupt episodic crises with increased weakness, bulbar paralysis, and apnea precipitated by undue exertion, fever, or excitement. Inheritance is autosomal recessive.</p>
Host	NZ white rabbit
Purity	Whole serum
Applications	IHC, WB. A dilution of 1: 500 to 1: 2000 is recommended. The optimal dilution should be determined by the end user.
Specificity	Appears to be specific for ChAT.
Spcs X-react.	Human, rat, mouse and guinea pig. Other species not yet tested.
Form/Storage	Liquid: glycerol (1:1) has been added for an additional stability. Maintain the antibody frozen at -20°C for long term storage and refrigerated at 2-8°C for a shorter term. Avoid freeze and thaw cycles.
References	<ol style="list-style-type: none">1. Oda Y, et al. Brain Res. Mol. Brain Res. 16:287-294(1992).2. Ohno K, et al. Proc. Natl. Acad. Sci. U.S.A. 98:2017-2022(2001).3. Lorenzi M.V, et al. DNA Cell Biol. 11:593-603(1992).4. Hersh L.B, et al. J. Neurochem. 51:1843-1845(1988).5. Cervini R, et al. Neurosci. Lett. 132:191-194(1991).

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