

For Research Use Only

CHAT Polyclonal antibody

Catalog Number: 20747-1-AP **41 Publications**



Basic Information

Catalog Number: 20747-1-AP	GenBank Accession Number: NM_020549	Purification Method: Antigen affinity purification
Size: 150ul, Concentration: 900 µg/ml by Nanodrop;	GeneID (NCBI): 1103	Recommended Dilutions: WB 1:500-1:1000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IHC 1:50-1:500 IF 1:50-1:500
Source: Rabbit	UNIPROT ID: P28329	
Isotype: IgG	Full Name: choline acetyltransferase	
	Calculated MW: 83 kDa	
	Observed MW: 47-50 kDa, 66-70 kDa	

Applications

Tested Applications: WB, IP, IF, IHC, ELISA	Positive Controls: WB : mouse brain tissue, mouse placenta tissue, Jurkat cells, rat brain tissue IP : rat brain tissue, IHC : mouse cerebellum tissue, rat brain tissue, mouse brain tissue, human lung cancer tissue IF : mouse brain tissue,
Cited Applications: WB, IF, FC, IHC	
Species Specificity: human, mouse, rat	
Cited Species: human, rat, mouse	

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

CHAT (choline acetyltransferase) belongs to the carnitine/choline acetyltransferase family. It catalyzes the reversible synthesis of acetylcholine (ACh) from acetyl CoA and choline at cholinergic synapses. Defects in CHAT are the cause of congenital myasthenic syndrome with episodic apnea (CMSEA). CHAT is known to be present exclusively in the cytoplasm of cholinergic neurons and anti-CHAT antibody has been considered as the best marker for cholinergic neurons. It has been observed that CHAT gene generates multiple mRNA splice variants, including peripheral type CHAT (pCHAT) and common type CHAT (cCHAT), encoding 40-55 kDa and 66-70 kDa forms of proteins, respectively. This antibody can recognize both pCHAT and cCHAT.

Notable Publications

Author	Pubmed ID	Journal	Application
Xiaoyan Liu	31574948	Int J Mol Sci	IF
Mu-Jun Chang	27624611	J Dig Dis	WB
Paulina Borkowska	36143442	Life (Basel)	FC

Storage

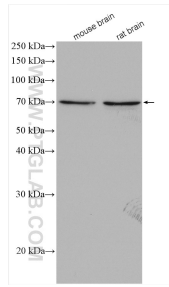
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

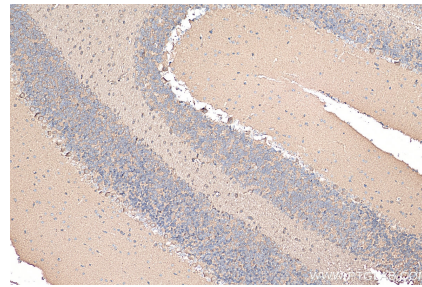
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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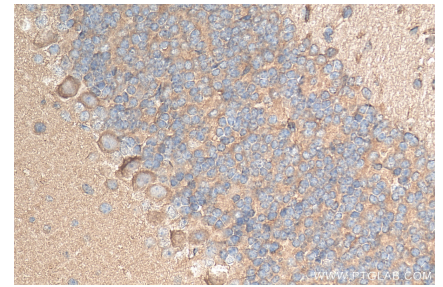
Selected Validation Data



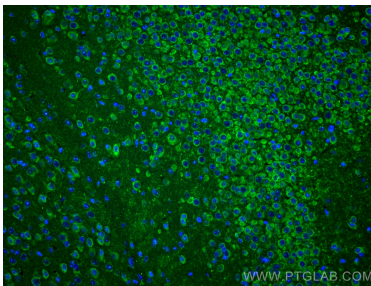
Various lysates were subjected to SDS PAGE followed by western blot with 20747-1-AP (CHAT antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



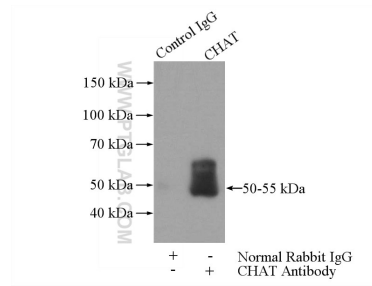
Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 20747-1-AP (CHAT antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 20747-1-AP (CHAT antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using CHAT antibody (20747-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-CHAT (IP:20747-1-AP, 4ug; Detection:20747-1-AP 1:500) with rat brain tissue lysate 4000ug.