For Research Use Only

CHAT Polyclonal antibody

Catalog Number:20747-1-AP 50 Publications

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Basic Information

Catalog Number:
20747-1-AP

Size:
150ul , Concentration: 650 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_020549

GeneID (NCBI):
1103

UNIPROT ID:
P28329

Full Name:
choline acetyltransferase

Calculated MW:
83 kDa

Observed MW:
47-50 kDa, 66-70 kDa

Purification Method:
Antigen affinity purification

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-P: 1:50-1:500

Applications

Tested Applications:
WB, IHC, IF-P, IP, ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat

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

Positive Controls:

WB : mouse brain tissue, mouse placenta tissue, rat brain tissue

IP : rat brain tissue,

IHC : mouse cerebellum tissue, rat brain tissue, mouse brain tissue, human lung cancer tissue

IF-P : mouse brain tissue,

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

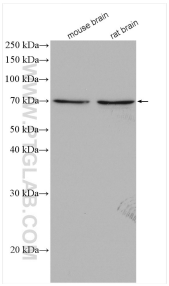
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

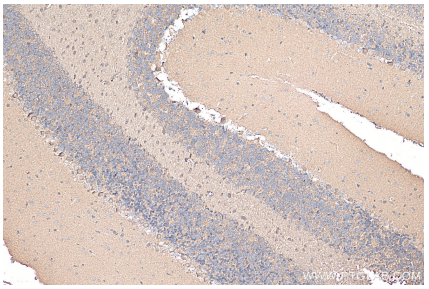
*** 20ul sizes contain 0.1% BSA

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
W: ptglab.com

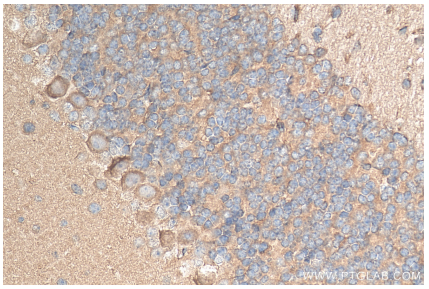
Selected Validation Data



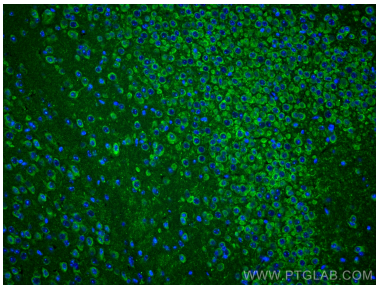
Various lysates were subjected to SDS PAGE followed by western blot with 20747-1-AP (CHAT antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



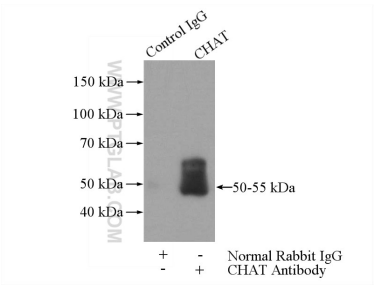
Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 20747-1-AP (CHAT antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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 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.