

For Research Use Only

# CHAT Polyclonal antibody

Catalog Number: 20747-1-AP

50 Publications



## Basic Information

### Catalog Number:

20747-1-AP

### Concentration:

900 µg/ml

### 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 µg 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

### 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,

**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, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

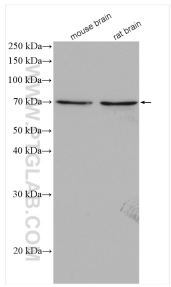
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

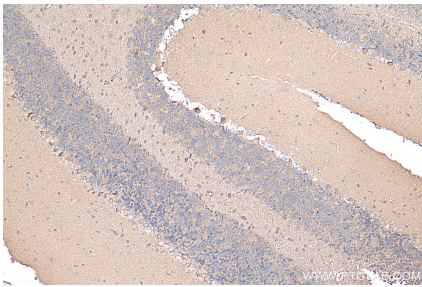
W: [ptgcn.com](http://ptgcn.com)

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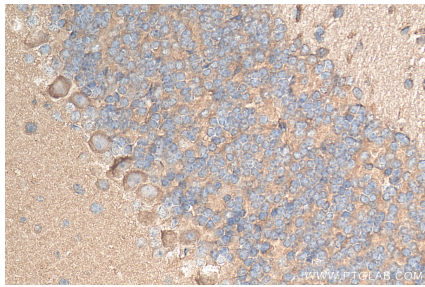
Selected Validation Data



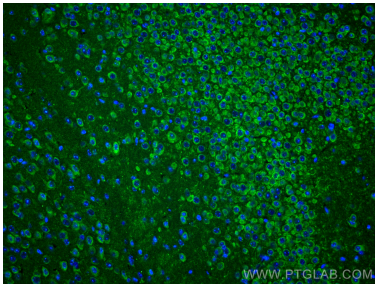
Various lysates were subjected to SDS PAGE followed by western blot with 20747-1-AP (CHAT antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



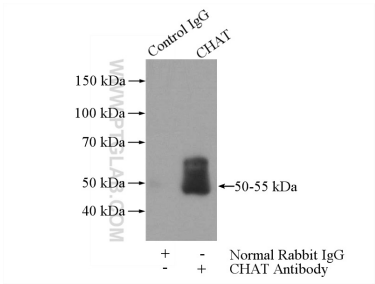
Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 20747-1-AP (CHAT antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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 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.