

For Research Use Only

# CHAT Polyclonal antibody

Catalog Number: 24418-1-AP



## Basic Information

**Catalog Number:**

24418-1-AP

**Size:**

150ul, Concentration: 550 µg/ml by Nanodrop and 313 µg/ml by Bradford method using BSA as the standard;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG19550

**GenBank Accession Number:**

BC130617

**GeneID (NCBI):**

1103

**Full Name:**

choline acetyltransferase

**Calculated MW:**

748 aa, 83 kDa

**Observed MW:**

60-66 kDa, 45 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:500-1:2000

IP 0.5-4.0 µg for IP and 1:200-1:1000 for WB

IHC 1:50-1:500

IF 1:50-1:500

## Applications

**Tested Applications:**

IF, IHC, IP, WB, ELISA

**Species Specificity:**

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**

**Positive Controls:**

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

**IP:** rat brain tissue,

**IHC:** rat brain tissue, mouse brain tissue

**IF:** 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.

## 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

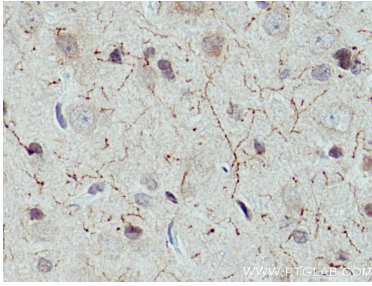
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

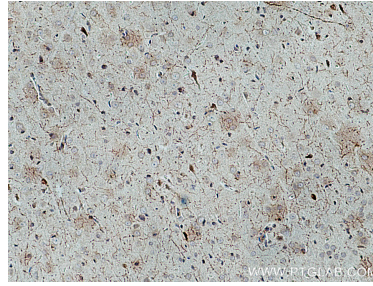
E: proteintech@ptglab.com  
W: ptglab.com

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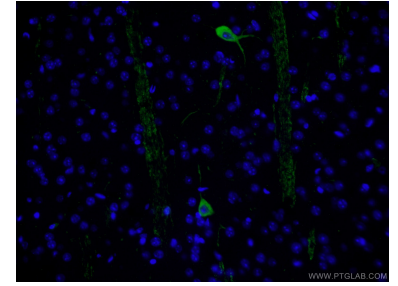
## Selected Validation Data



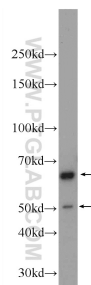
Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 24418-1-AP (CHAT antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



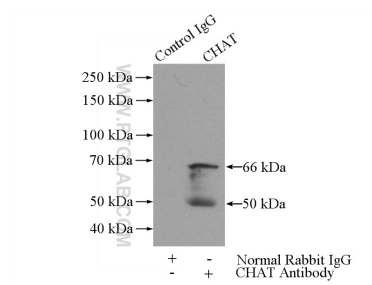
Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 24418-1-AP (CHAT antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 24418-1-AP (CHAT antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



rat brain tissue were subjected to SDS PAGE followed by western blot with 24418-1-AP (CHAT Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP Result of anti-CHAT (IP:24418-1-AP, 4ug; Detection:24418-1-AP 1:300) with rat brain tissue lysate 4000ug.