

Datasheet for 600-101-D16**ChAT (Choline Acetyltransferase) Antibody****Overview**

Description:	Anti-ChAT (Choline Acetyltransferase) (GOAT) Antibody - 600-101-D16
Item No.:	600-101-D16
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Human, Mouse, Avian, Chicken, Guinea Pig, Non-Human Primates
Host Species:	Goat

Product Details

Background:	ChAT antibody recognizes choline acetyltransferase which is a neuronal enzyme which catalyzes the reaction between Acetyl CoA and choline resulting in the formation of acetylcholine. ChAT is found primarily in cholinergic neurons making it a valuable marker for diseases associated with decreased cholinergic function such as Schizophrenia, Alzheimer disease (AD) and Down syndrome. Decreased choline acetyltransferase activity in particular has been shown in Schizophrenic subjects. It has furthermore been demonstrated that in patients with AD, there are significantly lower levels of cortical ChAT that correlate with severity of the disease as measured by loss of neuropsychological function. Anti-ChAT antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.
Synonyms:	acetyl CoA:choline O-acetyltransferase, CHAT, CHOACTase, Choline acetylase, choline acetyltransferase, Choline O-acetyltransferase, CLAT, CMS1A, CMS1A2
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CHAT
Reactivity:	Human, Mouse, Avian, Chicken, Guinea Pig, Non-Human Primates
Immunogen Type:	Native Protein

Immunogen:	Anti-ChAT Antibody was produced in rabbit by repeated immunizations with native choline acetyltransferase purified from human placenta.
Purity/Specificity:	Anti-ChAT antibody is directed against human ChAT protein. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Cross reactivity with ChAT from other species has not been determined. However, reactivity is also expected from the following species based on 100% sequence homology: chicken, guinea pig, mouse, and non-human primates.
Relevant Links:	• UniProtKB - P28329 • GeneID - 1103 • UniProtKB - P28329.4

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-ChAT antibody is tested by western blot and immunohistochemistry and suitable for use in ELISA. Specific conditions for reactivity should be optimized by the end user. Expect a ~ 68/70 kDa band corresponding to choline acetyltransferase protein by Western Blot in the appropriate lysate or tissue.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	1:100
WB:	1:100

Formulation

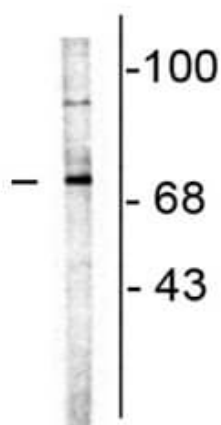
Physical State:	Liquid
Buffer:	0.01 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	5mg BSA

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western Blot of Goat Anti-Choline Acetyltransferase Antibody. Lane 1: rat brain lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: ChAT antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ goat secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~70kDa/~70kDa for ChAT. Other band(s): none.

References

- Liu et al. Lhx6-positive GABA-releasing neurons of the zona incerta promote sleep. *Nature* (2017)

Disclaimer

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