

## Anti-Choline Acetyltransferase

Goat Polyclonal Antibody

Catalog # **C309-363G**

Lot # Z2014-4

### Cited Applications

WB, IHC

Ideal working dilutions for each application should be empirically determined by the investigator.

### Specificity

Recognizes the choline acetyltransferase protein

### Cross Reactivity

Human, Mouse, Rat, Guinea Pig, Chicken, and Non-Human Primates

### Host/Isotype/Clone#

Goat, IgG

### Immunogen

Native choline acetyltransferase purified from human placenta

### Formulation

100 µl in PBS + 5 mg/ml BSA + 0.2% NaN<sub>3</sub>

### Stability

1yr at -20°C from date of shipment

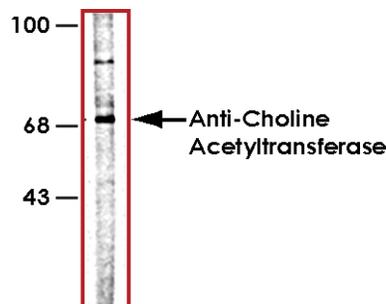
### Scientific Background

Choline acetyltransferase (ChAT) is a neuronal enzyme which catalyzes the reaction between Acetyl CoA and choline resulting in the formation of acetylcholine. It is therefore 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 (2). Decreased choline acetyltransferase activity in particular has been shown in Schizophrenic subjects (1). 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 (3).

### References

1. Karson CN, Casanova MF, Kleinman JE, Griffin WS Choline acetyltransferase in schizophrenia. Am. J.Psychiatry 150:454-459. 1993.
2. Holt DJ, et al Evidence for a deficit in cholinergic interneurons in the striatum in schizophrenia. Neuroscience. 94(1):21-31. 1999.
3. Baskin DS, et al, Brain choline acetyltransferase and mental function in Alzheimer disease. Arch Neurol. 56:1121-1123.1999.

### Sample Data



Western blot of rat brain lysate showing specific immunolabeling of the ~70k Choline Acetyltransferase.

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Purification	Affinity chromatography
Stability	1yr at -20°C from date of shipment
Storage & Shipping	Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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