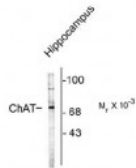




Choline Acetyltransferase Antibody

Cat. No.: 50-265

Anti-Choline Acetyltransferase



Western blot of rat brain lysate showing specific immunolabeling of the ~70k ChAT

Ψ SPECIFICATIONS

HOST SPECIES:	Goat
SPECIES REACTIVITY:	Chicken, Goat, Human, Mouse, Rat
IMMUNOGEN:	Native choline acetyltransferase purified from human placenta.
TESTED APPLICATIONS:	IHC, WB
SPECIFICITY:	Specific for the ~ 70k choline acetyltransferase protein
PREDICTED MOLECULAR WEIGHT:	70

Ψ PROPERTIES

PURIFICATION:	Affinity Purified
CLONALITY:	Polyclonal
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	100 uL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug per mL BSA and 50% glycerol.
STORAGE CONDITIONS:	Choline Acetyltransferase antibody can be stored at -20°C and is stable at -20°C for at least 1 year.

Ψ ADDITIONAL INFO

OFFICIAL SYMBOL:	CHAT
ALTERNATE NAMES:	CMS1A, CMS1A2, CHOACTASE, CHOACTase
ACCESSION NO.:	P28329
PROTEIN GI NO.:	281185509
GENE ID:	1103
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Ψ BACKGROUND AND REFERENCES

BACKGROUND:	Choline acetyltransferase 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 (Holt et al. 1999). Decreased choline acetyltransferase activity in particular has been shown in Schizophrenic subjects (Karson et al 1993). 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 (Baskin et al. 1999).
REFERENCES:	1) Karson CN, Casanova MF, Kleinman JE, Griffin WS (1993) Choline acetyltransferase in schizophrenia. <i>Am. J.Psychiatry</i> 150:454-459. 2) Holt DJ, Herman MM, Hyde TM, Kleinman JE, Cinton CM, German DC, Hersh LB, Greybiel AM, Saper CB (1999) Evidence for a deficit in cholinergic interneurons in the striatum in schizophrenia. <i>Neuroscience</i> 94(1):21-31. 3) Baskin DS, Browning JL, Pirozzolo FJ, Korporaal S, Baskin JA, Appel SH (1999) Brain choline acetyltransferase and mental function in Alzheimer disease. <i>Arch Neurol.</i> 56:1121-1123.

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