

Product datasheet for **AP31801PU-N**

Choline Acetyltransferase (CHAT) Chicken Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC
Recommended Dilution:	Immunocytochemistry. Immunohistochemistry. Recommended Dilutions: 1/1000-1/2000 for Immunohistochemistry and Immunocytochemistry using 2% paraformaldehyde-fixed tissues or cells. Quality Control: The antibody was analyzed by Immunohistochemistry (at 1/2000) using Fluorescein-labeled Goat anti-Chicken IgY (<i>Cat.-No</i> AP31795FC-N, 1/500 dilution) as the secondary reagent.
Reactivity:	Human, Mouse
Host:	Chicken
Isotype:	IgY
Clonality:	Polyclonal
Immunogen:	Synthetic peptide KLH conjugated corresponding to a region of the Choline Acetyltransferase gene product shared between the Human (P28329) and Mouse (Q03059) sequences. After repeated injections, immune eggs were collected, the IgY fractions were purified from the yolks and then affinity-purified using a peptide column.
Specificity:	Recognizes Choline Acetyltransferase (ChAT).
Formulation:	10mM PBS, pH 7.2 containing 0.02% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified (filter sterilized) IgY fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography using a peptide column.
Conjugation:	Unconjugated
Storage:	Store undiluted in the dark at 2-8°C.
Stability:	Shelf life: one year from despatch.
Gene Name:	choline O-acetyltransferase



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Database Link: [Entrez Gene 12647 Mouse](#)[Entrez Gene 1103 Human](#)
[P28329](#)

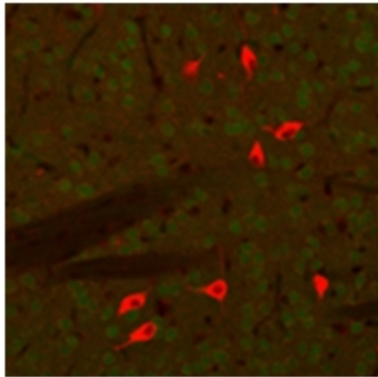
Background: Choline acetyltransferase is a neuronal enzyme which catalyzes the reaction between Acetyl CoA and choline resulting in the formation of acetylcholine. It is therefore found primarily in cholinergic neurons making it a valuable marker for diseases associated with decreased cholinergic function 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).

Synonyms: Choline O-acetyltransferase, Choline acetylase, CHOACTase, ChAT, EC=2.3.1.6

Protein Families: Druggable Genome

Protein Pathways: Glycerophospholipid metabolism

Product images:



Immunofluorescence using ChAT antibody : A tissue Section through an adult Mouse brain showing ChAT (Red staining) in cholinergic neurons of the caudate-putamen nucleus. The pale green staining is autofluorescence of Green Fluorescent Protein (GFP) in this transgenic animal.