

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Choline Acetyltransferase/ChAT in direct ELISAs and Western blots. Recognizes both ChAT isoform 1 (ChAT-69) and isoform 2 (ChAT-82).
Source	Monoclonal Mouse IgG ₁ Clone # 334008
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Choline Acetyltransferase/ChAT isoform 1 Ala2-Pro630 Accession # NP_066266
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Choline Acetyltransferase/ChAT

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

ChAT catalyzes the production of the neurotransmitter acetylcholine (ACh), which is required for cholinergic neuron communication. It serves as a marker for functional cholinergic neurons in the central and peripheral nervous systems. At least six ChAT mRNAs encoding 69 kDa, 82 kDa and 74 kDa ChAT proteins have been identified. Compared to the 82 kDa form, 69 kDa ChAT lacks the N-terminal 118 amino acid extension containing a nuclear localization signal. As a result the 69 kDa ChAT is primarily localized to the cytoplasm. Human 69 kDa ChAT shares 86% amino acid sequence identity with the mouse or rat ChAT.