



CHT1 (5K101): sc-70859

BACKGROUND

Under physiological conditions, Na⁺-Cl⁻-dependent hemicholinium-3 (HC-3)-sensitive, high-affinity choline uptake limits the rate of acetylcholine synthesis in cholinergic neurons. Hemicholinium-3 sensitive high-affinity choline transporter (CHT1) carries out this uptake. Regions of the nervous system that are rich with cholinergic cell bodies such as the spinal cord, brainstem, mid-brain, and striatum express CHT at high levels, whereas tissues lacking cholinergic cells, such as the cerebellum and kidney, show no CHT1 expression. CHT1 localizes to a subpopulation of small vesicles, which also contain vesicular acetylcholine transporter and acetylcholine, within the cholinergic presynaptic terminals. In response to neuronal activity, these particular vesicles translocate to the plasma membrane to re-uptake choline, a process that, due to the other contents of the vesicle, may be coupled with the rate of ACh release.

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SOURCE

CHT1 (5K101) is a mouse monoclonal antibody raised against thymocytes of chicken origin.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 mL PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-70859 PE) or fluorescein (sc-70859 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

CHT1 (5K101) is recommended for detection of CHT1 antigen on chicken thymocytes of chicken origin by immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Molecular Weight of CHT1: 65 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.