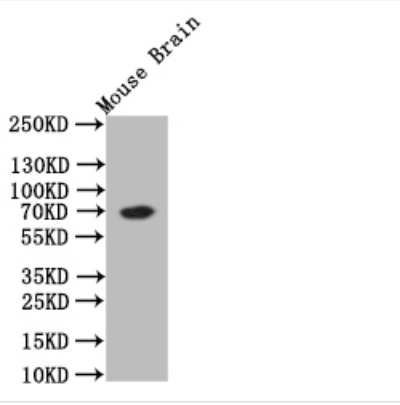
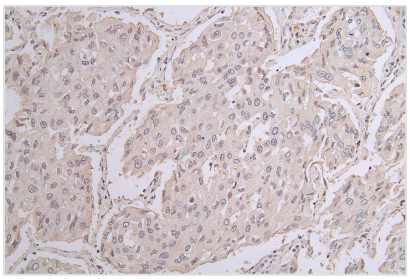
CHAT Recombinant Monoclonal Antibody

Product Code	CSB-RA825574A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P28329
Immunogen	A synthesized peptide derived from Human CHAT
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:2000, IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience
Gene Names	CHAT
Clone No.	8E7

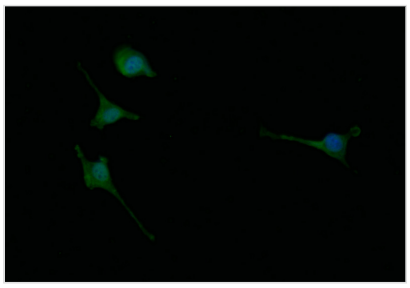
Image



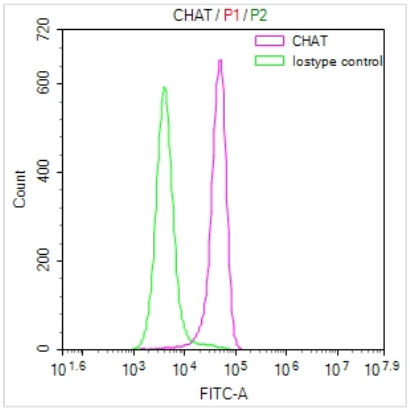
Western Blot
Positive WB detected in: Mouse Brain tissue lysate
All lanes: CHAT antibody at 1:500
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 70 kDa
Observed band size: 70 kDa



IHC image of CSB-RA825574A0HU diluted at 1:50 and staining in paraffin-embedded human lung cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.22% DAB.



Immunofluorescence staining of SH-SY5Y with CSB-RA825574A0HU at 1:30, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 498-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing SH-SY5Y cells stained with CSB-RA825574A0HU (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1μg/1*10^{6}cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1μg/1*10^{6}cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The CHAT recombinant monoclonal antibody is synthetically produced in vitro using a systematic approach. Initially, CHAT antibody genes are extracted from B cells isolated from immunoreactive rabbits. These genes undergo amplification and are cloned into suitable phage vectors, which are subsequently introduced into mammalian cell lines to facilitate the production of functional antibodies in significant quantities. The resulting CHAT recombinant monoclonal antibody is purified from the culture supernatant of the transfected cell lines through affinity chromatography. It is suitable for the precise detection of human and mouse CHAT protein in various applications, including ELISA, WB, IHC, IF, and FC.

CHAT protein is responsible for catalyzing the synthesis of acetylcholine, a neurotransmitter that plays essential roles in neurotransmission, neuromuscular function, autonomic regulation, and cognitive processes. Its activity is crucial for the proper functioning of the nervous system and is of clinical significance in the context of neurological disorders and therapeutic interventions.