

Recombinant Human CHAT protein, His-tagged

Cat. No. CHAT-172H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CHAT(Asp517~Pro732) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Asp517~Pro732
Description	This gene encodes an enzyme which catalyzes the biosynthesis of the neurotransmitter acetylcholine. This gene product is a characteristic feature of cholinergic neurons, and changes in these neurons may explain some of the symptoms of Alzheimer's disease. Polymorphisms in this gene have been associated with Alzheimer's disease and mild cognitive impairment. Mutations in this gene are associated with congenital myasthenic syndrome associated with episodic apnea. Multiple transcript variants encoding different isoforms have been found for this gene, and some of these variants have been shown to encode more than one isoform.
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300
Molecular Mass	28.0kDa
Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	> 95%

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Applications	Positive Control; Immunogen; SDS-PAGE; WB. If bio-activity of the protein is needed, please check active protein
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Reconstitution	Reconstitute in PBS or others.

GENE INFORMATION

Gene Name	CHAT choline O-acetyltransferase [Homo sapiens]
Official Symbol	CHAT
Synonyms	CHAT; choline O-acetyltransferase; choline acetyltransferase; choline acetylase; acetyl CoA:choline O-acetyltransferase; CMS1A; CMS1A2; CHOACTASE;
Gene ID	1103
mRNA Refseq	NM_001142929
Protein Refseq	NP_001136401
MIM	118490
UniProt ID	P28329

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Chromosome Location	10q11.2
Pathway	Acetylcholine Neurotransmitter Release Cycle, organism-specific biosystem; Acetylcholine Synthesis, organism-specific biosystem; Biogenic Amine Synthesis, organism-specific biosystem; Cholinergic synapse, organism-specific biosystem; Glycerophospholipid metabolism, organism-specific biosystem; Glycerophospholipid metabolism, conserved biosystem; Neuronal System, organism-specific biosystem;
Function	choline O-acetyltransferase activity; choline binding; transferase activity, transferring acyl groups;

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