

Active Recombinant Human BCHE

Cat. No. BCHE-2533H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human butyrylcholinesterase (BChE) produced from conditioned medium of stably-transfected CHO-K1 cells is a tetramer form associated with a proline-rich attachment domain (PRAD). Each mature polypeptide contains 574 amino acids having a predicted molecular mass of approximately 65kD, but migrates with an approximate molecular mass of 280kD in non-reduced SDS gel.
Species	Human
Source	CHO
Description	Butyrylcholinesterase (BCHE, or BuChE), also known as pseudocholinesterase or plasma cholinesterase) is a non-specific cholinesterase enzyme that hydrolyses many different choline esters. In humans, it is found primarily in the liver and is encoded by the BCHE gene.
Form	20mM Tris-Cl (pH7.9), 20% Glycerol, 100mM NaCl, 1mM DTT and 0.5mM EDTA
Bio-activity	Butyrylcholinesterase is a serine hydrolase and has a potential role in maintaining and regulating the activity of neurotransmitter acetylcholine in the central nervous system. Recombinant human BChE protein has similar pharmacokinetic and protective properties to plasma-derived BChE and is suitable for other related function assays.
AA Sequence	EDDIIATKNGKVRGMNLTVFGGTVTAFLGIPYAQPPLGRLRFKKPQSLTKWSDIWNATKYANSCCQNIDQSFP GFHGSEMWNPNNTDLSCLYLNWVWIPAPKPKNATVLIWIY

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GGGFQTGTSSLHVYDGKFLARVERVIVVSMNYRV GALGFLALPGNPEAPGNMGLF
DQQLALQWVQKNIAAFGGNPKSVTLFGESAGAASVSLHLLSPGSHSLFTRAI LQSG
SFNAPWAVTSLYEARNRTLNLAKLTGCSRENETEIIKCLRKNKDPQEILLNEAFVVPYG
TPLSVNFGPTVD GDFLTDMPDILLELGQFKKTQILVGVNKDEGTAFLVYGAPGFSKD
NNSIITRKEFQEGLKIFFPGVSEFGKES ILFHYTDWVDDQRPENYREALGDVVG DYN
FICPALEFTKKFSEWGNNAFFYYFEHRSSKLPWPEWMGVMHGYEI EFVFGLPLERR
DNYTKAEEILSR SIVKRWANFAKYGNPNETQNNSTSWPVFKSTEQKYLTLNTESTRI
MTKLR AQQCRFWTSFFPKVLEMTGNIDEAEWEWKAGFHRWNNYMMDWKNQFND
YTSKKESCVGL

Purity ≥90%, as determined by SDS-PAGE

Usage FOR RESEARCH ONLY

Storage The protein sample can be stored under sterile conditions at 2- 8 centigrade for one month or at -70 centigrade for three months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name [BCHE butyrylcholinesterase \[Homo sapiens \]](#)

Official Symbol BCHE

Synonyms E1; CHE1; CHE2; cholinesterase; acylcholine acylhydrolase; butyrylcholine esterase; choline esterase II; cholinesterase (serum) 2; cholinesterase 1; pseudocholinesterase

Gene ID [590](#)

mRNA Refseq [NM_000055](#)

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Protein Refseq	NP_000046
MIM	177400
UniProt ID	P06276
Chromosome Location	3q26.1-q26.2
Pathway	Glycerophospholipid biosynthesis, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of proteins, organism-specific biosystem
Function	acetylcholinesterase activity; beta-amyloid binding; catalytic activity

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