

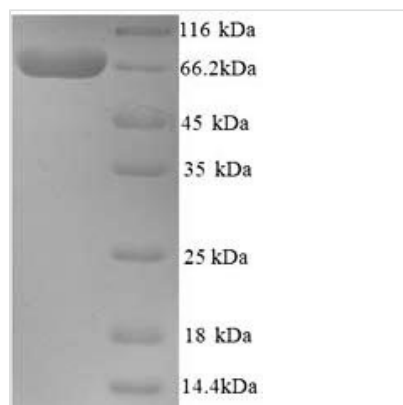


Recombinant Human Cholinesterase (BCHE)

Product Code	CSB-YP002604HU
Relevance	Esterase with broad substrate specificity. Contributes to the inactivation of the neurotransmitter acetylcholine. Can degrade neurotoxic organophosphate esters.
Abbreviation	Recombinant Human BCHE protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P06276
Alias	Acylcholine acylhydrolaseButyrylcholine esteraseCholine esterase IIPseudocholinesterase
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	EDDIIATKNGKVRGMNLTVFGGTVTAFLGIPYAQPPLGRLRFKKPQSLTKWSDI WNATKYANSCCQNIDQSFPGFHGSEMWNPNNTDLSEDCLYLNWVWIPAPKPKNA TVLIWIYGGGFQTGTSSLHVYDQKFLARVERVIVVSMNYRVGALGFLALPGNP EAPGNMGLFDQQLALQWVQKNIAAFGGNPKSVTLFGESAGAASVSLHLLSPG SHSLFTRAILQSGSFNAPWAVTSLYEARNRTLNLAKLTGCSRENETEIIKCLRN KDPQEILLNEAFVVPYGTPLSVNFGPTVDGDFTDMPDILLELGQFKKTQILVG VNKDEGTAFLVYGAPGFSKDNNSIITRKEFQEGLKIFFPGVSEFGKESILFHYTD WVDDQRPENYREALGDVVGDNFICPALEFTKKFSEWGNNAFFYYFEHRSSK LPWPEWMGVMHGYEIEFVFGPLERRDNYTKAEEILSRIVKRWANFAKYGN PNETQNNSTSWPVFKSTEQKYLTLNTESTRIMTKLRAQQCRFWTSFFPKVLE MTGNIDEAEWEWKAGFHRWNNYMMDWKNQFNDYTSKKESCVGL
Research Area	Neuroscience
Source	Yeast
Target Names	BCHE
Protein Names	Recommended name: Cholinesterase EC= 3.1.1.8 Alternative name(s): Acylcholine acylhydrolase Butyrylcholine esterase Choline esterase II Pseudocholinesterase
Expression Region	29-602aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	67.1kDa
Protein Length	Full Length of Mature Protein



Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

To produce recombinant Human BCHE protein, a well-established recombinant DNA technology is the key. A DNA template of BCHE was constructed with N-terminal 6xHis tag using the technique. Once the template was made, the recombinant Human BCHE protein could be produced with it efficiently. CUSABIO has built a strict QC system to ensure quality. The expression region is 29-602aa of the Human BCHE. The purity of this recombinant is 90% determined by SDS-PAGE.

BCHE is a protein coding gene that encodes Cholinesterase (Butyrylcholine esterase). According to some studies, BCHE may have the following features. The cloned BCHE gene maps to a single chromosome site, 3q26. GWAS of butyrylcholinesterase activity identified four novel loci, independent effects within BCHE and secondary associations with metabolic risk factors. Potent AChE and BChE inhibitors were isolated from seeds of *Peganum harmala* Linn by bioassay-guided fractionation. Neuroprotective tricyclic and tetracyclic BChE inhibitors release reversible inhibitors after carbamate transfer. Variation at locus 116 of the BCHE gene associating with enzyme activity and body mass index. BCHE, through its K variant, but not a nearby marker, is a susceptibility factor for AD and enhances AD risk defined only by APOE ϵ 4 in an age-dependent manner.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.