

BCHE Protein, Human (HEK293, His)

Cat. No.:	HY-P7690
Synonyms:	rHuBCHE, His; Butyrylcholine Esterase; BCHE; Choline Esterase II
Species:	Human
Source:	HEK293
Accession:	P06276 (E29-L602)
Gene ID:	590
Molecular Weight:	Approximately 90.0 kDa

PROPERTIES

AA Sequence

EDDII IATKN	GKVRGMNLT V	FGGTVTAFLG	IPYAQPPLGR
LRFKKPKQSLT	KWSDIWNATK	YANSCCQNID	QSFPGFHGSE
MWNPNTDLSE	DCLYLNWVWIP	APKPKNATVL	IWIYGGGFQT
GTSSLHVYDYG	KFLARVERVI	VVSMNYRVGA	LGFLALPGNP
EAPGNMGLFD	QQLALQWVQK	NIAAFGGNPK	SVTLFGESAG
AASVSLHLLS	PGSHSLFTRA	ILQSGSFNAP	WAVTSLYEAR
NRTLNLAKLT	GCSRENETEI	IKCLRKNKDPQ	EILLNEAFVV
PYGTPLSVNF	GPTVDGDFLT	DMPDILLELG	QFKKTQILVG
VNKDEGTAFL	VYGAPGFSDK	NNSIITRKEF	QEGLKIFFPG
VSEFGKESIL	FHYTDWVDDQ	RPENYREALG	DVVGDYNFIC
PALEFTKKFS	EWGNNAFFYY	FEHRSSKLPW	PEWGMVMHGY
EIEFVFGGLPL	ERRDNYTKAE	EILSR SIVKR	WANFAKYGNP
NETQNNSTSW	PVFKSTEQKY	LTLNTESTRI	MTKLRAQQCR
FWTSFFPKVL	EMTGNIDEAE	WEWKAGFHRW	NNYMMDWKNQ
FNDYTSKKE S	CVGLHHHHHH		

Appearance

Solution.

Formulation

Supplied as a 0.2 µm filter solution of 20 mM TrisHCl, 150 mM NaCl, pH 7.5.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

N/A

Storage & Stability

Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping

Shipping with dry ice.

DESCRIPTION

Background

Butyrylcholinesterase is a serine hydrolase closely related to acetylcholinesterase (AChE). Both enzymes have similar three-dimensional-structure. Though their catalytic mechanisms are similar, they display different substrate specificity and inhibitor sensitivity. BuChE is present in plasma and numerous vertebrate tissues. Unlike AChE that plays a key role in terminating the action of acetylcholine in cholinergic system, no direct involvement of BuChE in cholinergic system has been demonstrated. However, BuChE may be a surrogate for AChE in case of deficiency of this enzyme^[1].

REFERENCES

- [1]. Patrick Masson, et al. Structure, activities and biomedical applications of human butyrylcholinesterase. *Protein Pept Lett.* 2009;16(10):1215-24.
- [2]. Patrick Masson, et al. Butyrylcholinesterase for protection from organophosphorus poisons; catalytic complexities and hysteric behavior. *Arch Biochem Biophys.* 2010 Feb 15; 494(2): 107.
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Caution: Product has not been fully validated for medical applications. For research use only.

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