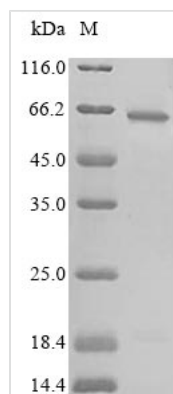




Recombinant Human Cystathionine beta-synthase (CBS), partial

Product Code	CSB-EP004589HU1
Relevance	Only known pyridoxal phosphate-dependent enzyme that contains he. Important regulator of hydrogen sulfide, especially in the brain, utilizing cysteine instead of serine to catalyze the formation of hydrogen sulfide. Hydrogen sulfide is a gastratransmitter with signaling and cytoprotective effects such as acting as a neuromodulator in the brain to protect neurons against hypoxic injury .
Abbreviation	Recombinant Human CBS protein, partial
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.	P35520
Alias	Beta-thionase;Serine sulfhydrase
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MPSETPQAEVGP TGCPHRSGPHSAKGSLEKGSPEDKEAKEPLWIRPDAPSRC TWQLGRPASESPHHHTAPAKSPKILPDILKKIGDTPMVRINKIGKKFGLKCELLA KCEFFNAGGSVKDRISLRMIEDAERDGTLPKPGDTIIPTSGNTGIGLALAAVR GYRCIIVMPEKMSSEKVDVLRALGAEIVRTPTNARFDSPESHVGVAVRLKNEIP NSHILDQYRNASNPLAHYDTTADAILQQCDGKLDMLVASVGTGGTITGIARKLK EKCPGCRIGVDPEGSILAEPEELNQTEQTYYEVEGIGYDFIPTVLDRTVVDKWF KSNDEEAFTFARMLIAQEGLLCGGSAGSTVAVAVKAAQELQEGQRCVVILPDS VRNYMTKFLSDRWMLQKGFLKEEDLTEKKPWWHHLR
Research Area	Metabolism
Source	E.coli
Target Names	CBS
Expression Region	1-413aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	61.4kDa
Protein Length	Partial
Image	



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

Description

The recombinant Human CBS protein is encoded by the gene of CBS (1-413aa). The gene of CBS was cloned in a system (E.coli) that supported the expression of CBS. Modification of CBS by recombinant DNA technology could lead to the expression of the target protein. The protein was fused with N-terminal 6xHis-SUMO tag in the production. The purity is 90% determined by SDS-PAGE.

CBS is a protein coding gene that encodes Cystathionine beta-synthase. According to some studies, CBS may have the following features. Commonly used pharmacological inhibitors are selective for cystathionine β synthase (CBS) and cystathionine γ lyase (CSE). The CBS domain forms an energy sensor module, and its binding to adenosine ligands is disrupted by disease mutations. Anatomical differences between CBS-cortical basal degeneration and CBS-Alzheimer's disease. Cysteine β synthase (CBS) contributes to the progression and drug resistance of advanced ovarian cancer. The expression of cystathionine beta synthase (CBS) gene during mouse development and its immunolocalization in the adult brain. The function and structure of the CBS domain from the CLC chloride channel are preserved. The overproduction of H₂S produced by CBS inhibits mitochondrial complex IV and inhibits the oxidative phosphorylation of Down syndrome.

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.