

Recombinant Human CBS, His-tagged

Cat. No. CBS-27861TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 242-551 of Human CBS with N terminal His tag; MWt 38kDa.
Species	Human
Source	E.coli
ProteinLength	242-551 a.a.
Description	The protein encoded by this gene acts as a homotetramer to catalyze the conversion of homocysteine to cystathionine, the first step in the transsulfuration pathway. The encoded protein is allosterically activated by adenosyl-methionine and uses pyridoxal phosphate as a cofactor. Defects in this gene can cause cystathionine beta-synthase deficiency (CBS), which can lead to homocystinuria. Multiple alternatively spliced transcript variants have been found for this gene.
Conjugation	HIS
Tissue specificity	In the adult strongly expressed in liver and pancreas, some expression in heart and brain, weak expression in lung and kidney. In the fetus, expressed in brain, liver and kidney.
Form	Lyophilised:Reconstitute with 153 µl aqua dest.
Storage buffer	Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium

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	phosphate, 10mM Sodium chloride, pH 4.5
Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	QQCDGKLDMLVASVGTGGTITGIARKLKEKCPGCRIGVD PEGSILAEPEELNQTEQ TTYEVEGIGYDFIPTVLDRTV VDKWFKSNDEEAFTFARMLIAQEGLLCGGSAGSTVA VA VKAAQELQEGQRCVVILPDSVRNYMTKFLSDRWMLQKG FLKEEDLTEKKPWW WHLRVQELGLSAPLTVLPTITCGHTI EILREKGFDPAPVVDEAGVILGMVTLGNMLSS LLAGKV QPSDQVGKVIYKQFKQIRLTDTLGRLSHILEMDHFALV VHEQIQYHSTGKS SQRQMVFGVVT AIDLLNFVAAQERD QK
Sequence Similarities	Belongs to the cysteine synthase/cystathionine beta-synthase family.Contains 1 CBS domain.

GENE INFORMATION

Gene Name	CBS cystathionine-beta-synthase [Homo sapiens]
Official Symbol	CBS
Synonyms	CBS; cystathionine-beta-synthase; cystathionine beta-synthase; HIP4;
Gene ID	875
mRNA Refseq	NM_000071
Protein Refseq	NP_000062
MIM	613381
Uniprot ID	P35520

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Chromosome Location	21q22.3
Pathway	Cysteine and methionine metabolism, organism-specific biosystem; Cysteine and methionine metabolism, conserved biosystem; Cysteine biosynthesis, homocysteine + serine => cysteine, organism-specific biosystem; Cysteine biosynthesis, homocysteine + serine =>
Function	cystathionine beta-synthase activity; enzyme binding; heme binding; heme binding; lyase activity;

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