

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: None Constituents: 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

QQCDGKLDMLVASVGTGGTITGIARKLKEKCPGCRIIGVD PEGSILAEPEELNQTEQ
 TTYEVEGIGYDFIPTVLDRTV VDKWFKSNDEEAFTFARMLIAQEGLLCGGSAGSTVA
 VA VKAAQELQEGQRCVVILPDSVRNYMTKFLSDRWMLQKG FLKEEDLTEKKPWW
 WHLRVQELGLSAPLTVLPTITCGHTI EILREKGFQAPVVDEAGVILGMVTLGNMLSS
 LLAGKV QPSDQVGKVIYKQFKQIRLTDTLGRLSHILEMDHFALV VHEQIQYHSTGKS
 SQRQMVFGVVTAIDLLNFVAAQERD 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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