

CBS Protein, Human (His)

Cat. No.:	HY-P72118
Synonyms:	AI047524; AI303044; Beta thionase; Beta-thionase; Cbs; Cbs cystathionine beta-synthase; CBS_HUMAN; Cystathionine beta synthase; Cystathionine beta-synthase; EC 4.2.1.22; HIP 4; HIP4; Methylcysteine synthase; MGC18856; MGC18895; MGC37300; OTTHUMP00000109416; OTTHUMP00000109418; Serine sulfhydrase
Species:	Human
Source:	E. coli
Accession:	P35520 (P2-K551)
Gene ID:	875
Molecular Weight:	Approximately 64.5 kDa

PROPERTIES

AA Sequence	<p> P S E T P Q A E V G P T G C P H R S G P H S A K G S L E K G S P E D K E A K E P L W I R P D A P S R C T W Q L G R P A S E S P H H T A P A K S P K I L P D I L K K I G D T P M V R I N K I G K K F G L K C E L L A K C E F F N A G G S V K D R I S L R M I E D A E R D G T L K P G D T I I E P T S G N T G I G L A L A A A V R G Y R C I I V M P E K M S S E K V D V L R A L G A E I V R T P T N A R F D S P E S H V G V A W R L K N E I P N S H I L D Q Y R N A S N P L A H Y D T T A D E I L Q Q C D G K L D M L V A S V G T G G T I T G I A R K L K E K C P G C R I I G V D P E G S I L A E P E E L N Q T E Q T T Y E V E G I G Y D F I P T V L D R T V V D K W F K S N D E E A F T F A R M L I A Q E G L L C G G S A G S T V A V A V K A A Q E L Q E G Q R C V V I L P D S V R N Y M T K F L S D R W M L Q K G F L K E E D L T E K K P W W W H L R V Q E L G L S A P L T V L P T I T C G H T I E I L R E K G F D Q A P V V D E A G V I L G M V T L G N M L S S L L A G K V Q P S D Q V G K V I Y K Q F K Q I R L T D T L G R L S H I L E M D H F A L V V H E Q I Q Y H S T G K S S Q R Q M V F G V V T A I D L L N F V A A Q E R D Q K </p>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

CBS, a hydro-lyase, plays a pivotal role in initiating the transsulfuration pathway by catalyzing the beta-replacement reaction where the hydroxyl group of L-serine is substituted by L-homocysteine, leading to the formation of L-cystathionine—a precursor to L-cysteine. This enzymatic process facilitates the elimination of L-methionine and the potentially harmful metabolite L-homocysteine. Beyond its role in catabolism, CBS is also integral to the production of hydrogen sulfide, serving as a gasotransmitter with both signaling and cytoprotective effects, particularly on neurons.

Caution: Product has not been fully validated for medical applications. For research use only.

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