

CSAD Protein, Mouse (His-SUMO)

Cat. No.:	HY-P72151
Synonyms:	CsadCysteine sulfinic acid decarboxylase; EC 4.1.1.29; Aspartate 1-decarboxylase; EC 4.1.1.11; Cysteine-sulfinic acid decarboxylase; Sulfinic acid decarboxylase
Species:	Mouse
Source:	E. coli
Accession:	Q9DBE0 (M1-L493)
Gene ID:	246277
Molecular Weight:	Approximately 71.1 kDa

PROPERTIES

AA Sequence

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M A D S K P L R T L   D G D P V A V E A L   L Q D V F G I V V D   E A I L K G T S A S
E K V C E W K E P E   E L K Q L L D L E L   Q S Q G E S R E Q I   L E R C R T V I H Y
S V K T G H P R F F   N Q L F S G L D P H   A L A G R I I T E S   L N T S Q Y T Y E I
A P V F V L M E E E   V L K K L R A L V G   W N S G D G V F C P   G G S I S N M Y A M
N L A R F Q R Y P D   C K Q R G L R A L P   P L A L F T S K E C   H Y S I T K G A A F
L G L G T D S V R V   V K A D E R G R M I   P E D L E R Q I I L   A E A E G S V P F L
V S A T S G T T V L   G A F D P L D A I A   D V C Q R H G L W F   H V D A A W G G S V
L L S R T H R H L L   D G I Q R A D S V A   W N P H K L L A A G   L Q C S A L L L R D
T S N L L K R C H G   S Q A S Y L F Q Q D   K F Y D V A L D T G   D K V V Q C G R R V
D C L K L W L M W K   A Q G G Q G L E R R   I D Q A F A L T R Y   L V E E I K K R E G
F E L V M E P E F V   N V C F W F V P P S   L R G K K E S P D Y   S Q R L S Q V A P V
L K E R M V K K G T   M M I G Y Q P H G T   R A N F F R M V V A   N P I L A Q A D I D
F L L G E L E L L G   Q D L
  
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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 Tris-based buffer, 50% Glycerol.

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 ddH₂O.

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

Cysteine sulfinic acid decarboxylase (CSAD) is an enzyme that catalyzes the decarboxylation of three substrates: L-aspartate, 3-sulfinic-L-alanine (cysteine sulfinic acid), and L-cysteate, resulting in the production of beta-alanine, hypotaurine, and taurine, respectively. Among these substrates, CSAD shows a preference for 3-sulfinic-L-alanine. Notably, the enzyme does not exhibit any decarboxylation activity toward glutamate. The diverse substrate specificity of CSAD suggests its involvement in the biosynthesis of important metabolites, such as taurine and beta-alanine, which play roles in various physiological processes, including bile salt formation and neurotransmission. It has to highlight CSAD's ability to selectively decarboxylate specific substrates, shedding light on its significance in the cellular metabolism of sulfur-containing amino acids.

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

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