AHCY Protein, Human (His-SUMO)

Cat. No.:	HY-P72073
Synonyms:	Adenosylhomocysteinase; AdoHcyase; ahcY; S adenosyl L homocysteine hydrolase; S adenosylhomocysteine hydrolase; S-adenosyl-L-homocysteine hydrolase; SAHH; SAHH_HUMAN
Species:	Human
Source:	E. coli
Accession:	P23526 (S2-Y432)
Gene ID:	191
Molecular Weight:	Approximately 63.6 kDa

PROPERTIES

AA Sequence	SDKLPYKVAD IGLAAWGRKA LDIAENEMPG LMRMRERYSA SKPLKGARIA GCLHMTVETA VLIETLVTLG AEVQWSSCNI FSTQDHAAAA IAKAGIPVYA WKGETDEEYL WCIEQTLYFK DGPLNMILDD GGDLTNLIHT KYPQLLPGIR GISEETTTGV HNLYKMMANG ILKVPAINVN DSVTKSKFDN LYGCRESLID GIKRATDVMI AGKVAVVAGY GDVGKGCAQA LRGFGARVII TEIDPINALQ AAMEGYEVTT MDEACQEGNI FVTTTGCIDI ILGRHFEQMK DDAIVCNIGH FDVEIDVKWL NENAVEKVNI KPQVDRYRLK NGRRIILLAE GRLVNLGCAM GHPSFVMSNS FTNQVMAQIE LWTHPDKYPV GVHFLPKKLD EAVAEAHLGK LNVKLTKLTE KQAQYLGMSC DGPFKPDHYR Y
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 20 mM Tris-HC1, 0.5 M NaCl, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	S-Adenosylhomocysteine hydrolase (AHCY) is a key cellular enzyme to catalyze the breakdown of S-adenosylhomocysteine (AdoHcy) to homocysteine and adenosine, preventing its accumulation and subsequent inhibition of methyl transferases (MTs). In case of AHCY deficiency, intracellular distribution and macromolecular organization of AHCY is impaired, thereby disturbing transmethylation processes possibly in all cellular compartments. AHCY deficiency in humans involves serious biochemical aberrations, retarded psychomotor development, myopathy and myelination disorders, and is potentially lethal in early stages of life. The newest findings link AHCY deficiency to hepatocellular carcinoma[1][2].

REFERENCES

[1]. Turner MA, et, al. Structure and function of S-adenosylhomocysteine hydrolase. Cell Biochem Biophys. 2000;33(2):101-25.

[2]. Grbeša I, et, al. Mutations in S-adenosylhomocysteine hydrolase (AHCY) affect its nucleocytoplasmic distribution and capability to interact with S-adenosylhomocysteine hydrolase-like 1 protein. Eur J Cell Biol. 2017 Sep;96(6):579-590.

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