

KYAT1 Protein, Human (His-SUMO)

Cat. No.:	HY-P71533
Synonyms:	KYAT1; CCBL1; Kynurenine--oxoglutarate transaminase 1; EC 2.6.1.7; Cysteine-S-conjugate beta-lyase; EC 4.4.1.13; Glutamine transaminase K; GTK; Glutamine--phenylpyruvate transaminase; EC 2.6.1.64; Kynurenine aminotransferase 1; Kynurenine aminotransferase I; KATI; Kynurenine--oxoglutarate transaminase I
Species:	Human
Source:	E. coli
Accession:	Q16773 (1M-372L)
Gene ID:	883
Molecular Weight:	Approximately 58.6 kDa

PROPERTIES

AA Sequence	<pre> MAKQLQARRL DGI DYNPWVE FVKLASEHDV VNLGQGFPDF PPPDFAVEAF QHAVSGDFML NQYTKTFVII IEPFFDCYEP MTMMAGGRP V FVSLKPGPIQ NGELGSSSNW QLDPMELAGK FTSRTKALVL NTPNNPLGKV FSREEL ELVA SLCQQHDVVC ITDEVYQWMV YDGHQHISIA SLPGMWERTL TIGSAGKTFS ATGWKVGWVL GPDHIMKHLR TVHQNSVFHC PTQSQA AVE SFEREQLLFR QPSSYFVQFP QAMQRCRDHM IRSLSVGLK PIIPQGSYFL ITDISDFKRK MPDLPGAVDE PYDRRFVKWM IKNKGLVAIP VSIFYSVPHQ KHFDHYIRFC FVKDEATLQA MDEKLRKWKV EL </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in 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 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

KYAT1 protein plays a pivotal role in cellular metabolism by catalyzing the irreversible transamination of the L-tryptophan metabolite L-kynurenine, leading to the formation of kynurenic acid (KA). This enzymatic activity is integral to the tryptophan catabolic pathway, where kynurenic acid serves as an intermediate. Notably, kynurenic acid acts as a broad-spectrum antagonist for various receptors, including the three ionotropic excitatory amino acid receptors. Beyond its involvement in tryptophan metabolism, KYAT1 also plays a role in the biotransformation of cysteine conjugates of specific halogenated alkenes and alkanes, contributing to the generation of reactive metabolites. Additionally, KYAT1 catalyzes the beta-elimination of S-conjugates and Se-conjugates of L-(seleno)cysteine, leading to the cleavage of the C-S or C-Se bond.

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

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