

Active Recombinant Full Length Human MAT2A Protein, His tagged

Cat. No. MAT2A-113H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	MAT2A;Methionine Adenosyltransferase;SAM synthase;S-adenosylmethionine;active full-length;His-tag;E.coli;AMS2;MATA2;enzyme activity
Species	Human
Source	E.coli
ProteinLength	2-395aa (full length)
Description	MAT2A (Methionine Adenosyltransferase 2A), also known as AMS2 or MATA2, is the primary extrahepatic isoform of S-adenosylmethionine (SAM) synthase. It catalyzes the formation of S-adenosyl-L-methionine (AdoMet/SAM) from L-methionine and ATP. MAT2A forms homo-dimers or homo-tetramers and can associate with the regulatory subunit MAT2B. The enzyme is central to one-carbon metabolism and methylation reactions. MAT2A is upregulated in hepatocellular carcinoma and other cancers, making it a key therapeutic target. EC 2.5.1.6.
Form	Liquid
Bio-activity	Specific activity > 85 pmol/min/μg, measured via hydrolysis of ATP during synthesis of S-adenosylmethionine (SAM) at 37°C.
Molecular Mass	44 kDa (2-395aa, His-tagged, theoretical); 48-55 kDa observed by SDS-PAGE (reducing conditions)

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AASequence	MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACE TVAKTGMILLAGEITSRAAVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQS PDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECMPLTIVLAHKLNAKLAELRRNG TLPWLRPDSKTQVTQVMQDRGAVLPIRVHTIVISVQHDEEVCLDEMARDALKEKVIK AVVPAKYLDETDIYHLQPSGRFVIGGPQGDAGLTGRKIIVDTYGGWGAHGGGAFSG KDYTKVDRSAAYAARWVAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKS ERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTAAYGHFGRDSFPWEVPKCLKY
Endotoxin	< 0.10 EU/μg (LAL method)
Purity	> 95% (by SDS-PAGE, Silver Staining; quantitative densitometry by Coomassie Blue Staining)
Applications	Enzyme Activity
Storage	-20°C to -70°C; stable for 6 months from date of receipt (unopened); 3 months after opening under sterile conditions. Avoid freeze-thaw cycles.
Reaction conditions	37°C, pH 7.4
EC	2.5.1.6
CAS	9014-22-6
Unit definition	One unit is defined as the amount of enzyme that hydrolyzes 1 pmol ATP per minute during synthesis of S-adenosyl-L-methionine at 37°C.
Storage Buffer	Tris, NaCl, TCEP and Glycerol (0.2 μm filtered)

GENE INFORMATION

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Gene Name	MAT2A
Official Symbol	MAT2A
Synonyms	AMS2;MATA2;MAT 2;MAT-II;AdoMet synthase 2;Methionine adenosyltransferase 2
Gene ID	4144
mRNA Refseq	NM_005911.6
Protein Refseq	NP_005902.1
MIM	601468
UniProt ID	P31153

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