
Product Data Sheet

Product Name: PSAT1 Human
 Cat. No.: GP22172
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Phosphoserine aminotransferase; Phosphohydroxythreonine aminotransferase; PSAT; PSAT1; PSA; EPIP.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSMDAPRQ VVNFPGPAK LPHSVLLEIQ KELLDYKGVG ISVLEMSHRS SDFAKIINNT ENLVRELLAV PDNYKVIFLQ GGGCGQFSAV PLNLIGLKAG RCADYVVTGA WSAKAAEEAK KFGTINIVHP KLGSYTKIPD PSTWNLNPDA SYVYYCANET VHGVDFIP DVKGAVLVCD MSSNFLSKPV DVSKFGVIFA GAQKNVGSAG VTVVIVRDDL LGFALRECPS VLEYKVQAGN SSLYNTPPCF SIYVMGLVLE WIKNNGGAAA MEKLSSIKSQ TIYEIIDNSQ GFYVCPVEPQ NRSKMNIPFR IGNAKGDDAL EKRFDLKALE LNMLSLKGHR SVGGIRASLY NAVTIEDVQK LAAFMKKFLE MHQL.		
Formulation	The PSAT1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 20% glycerol and 1mM DTT.		

Introduction

Phosphoserine aminotransferase (PSAT1) catalyzes the conversion of 3-phosphohydroxypyruvate into 3-phosphoserine which is dephosphorylated consequently by phosphoserine phosphatase to form L-serine. PSAT1 is probably a phosphoserine aminotransferase, based on similarity to proteins in mouse, rabbit, and Drosophila. PSAT1 is expressed at high levels in the brain, liver, kidney and pancreas, and very weakly expressed in the thymus, prostate, testis and colon. Defects in the PSAT1 gene are the cause of phosphoserine aminotransferase deficiency (PSATD). PSATD is distinguished biochemically by low plasma and cerebrospinal fluid concentrations of serine and glycine and clinically by intractable seizures, acquired microcephaly, hypertonia, and psychomotor retardation.

Stability

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

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

PSAT1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 394 amino acids (1-370) and having a molecular mass of 42.9kDa. PSAT1 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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