

## PSAT1 Human

**Description:** 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.

Catalog #: ENPS-216

For research use only.

**Synonyms:** Phosphoserine aminotransferase, Phosphohydroxythreonine aminotransferase, PSAT, PSAT1, PSA, EPIP.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile filtered colorless solution.

**Amino Acid Sequence:** MGSSHHHHHH SSGLVPRGSH MGSMDAPRQ VVNFPGPAK  
LPHSVLLEIQ KELLDYKGVG ISVLEMSHRS SDFAKIINNT ENLVRELLAV PDNYKVIFLQ  
GGGCGQFSAV PLNLIGLKAG RCADYVVTGA WSAKAAEEAK KFGTINIVHP KLSYTKIPD  
PSTWNLNPDA SYVYYCANET VHGVDFIP DVKGAVLVCD MSSNFLSKPV DVSKFGVIFA  
GAQKNVGSAG VT

**Purity:** Greater than 90.0% as determined by SDS-PAGE.

### Formulation:

The PSAT1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 20% glycerol and 1mM DTT.

### Stability:

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.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### 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.

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