

Product datasheet for **RC202475**

Phosphoserine Aminotransferase (PSAT1) (NM_058179) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phosphoserine Aminotransferase (PSAT1) (NM_058179) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Phosphoserine Aminotransferase
Synonyms:	EPIP; NLS2; PSA; PSAT; PSATD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202475 representing NM_058179 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGCCCCAGGCAGGTGGTCAACTTTGGCCTGGTCCCAGCTGCCGACTCAGTGTGTTAG
AGATACAAAAGGAATTATTAGACTACAAAGGAGTTGCCATTAGTGTCTTGAAATGAGTCACAGGTCATC
AGATTTTGCCAAGATTATTAACAATACAGAGAATCTTGTCGGGAATTGCTAGCTGTTCCAGACAACTAT
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AAGCAGGAAGGTGTGCGGACTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGAGAAGAAGCCAAGAA
GTTTGGGACTATAAATATCGTTCACCCTAACTTGGGAGTTATACAAAATTCCAGATCCAAGCACCTGG
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TGTTTCCAAGTTTGGTGTGATTTTGTGGTGCCAGAAGAATGTTGGCTCTGCTGGGGTACCCTGGTG
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CTGGAACAGCTCCTTGTACAACACGCCATGTTTCCAGCATCTACGTCATGGGCTTGGTCTGGAGTG
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CAATATGTTGCTTGAAGGGCATAGGTCTGTGGGAGGCATCCGGCCCTCTCTGTATAATGCTGTACACA
ATTGAAGACGTTCAGAAGCTGGCCGCTTCATGAAAAATTTTGGAGATGCATCAGCTA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202475 representing NM_058179
Red=Cloning site Green=Tags(s)

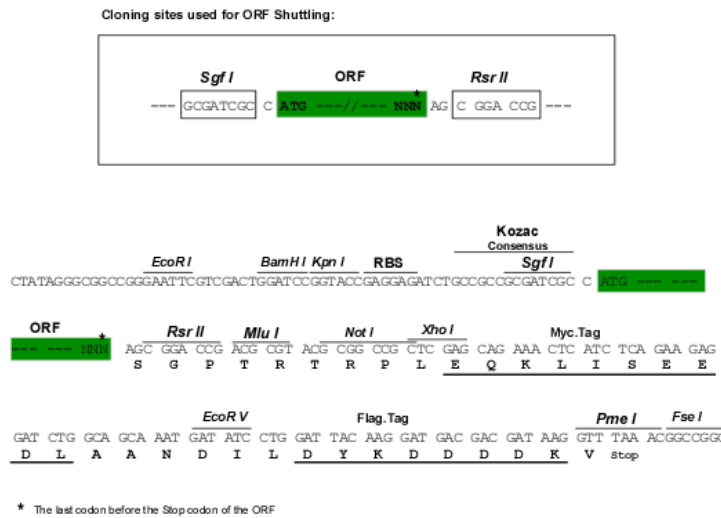
MDAPRQVVFNGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNY
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 NLNPDASYVYYCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQNKNGSAGVTVV
 IVRDDLGFALRECPVLEKVKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSIKSQTIYE
 IIDNSQGFYVCPVEPQNRSMNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRVGGIRASLYNAV
 IEDVQKLA AFMKK FLEMHQL

SGPTRTRRLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3521_f02.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_058179

ORF Size: 1110 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_058179.1](#)

RefSeq Size: 2221 bp

RefSeq ORF: 1113 bp

Locus ID: 29968

UniProt ID: [Q9Y617](#)

Cytogenetics: 9q21.2

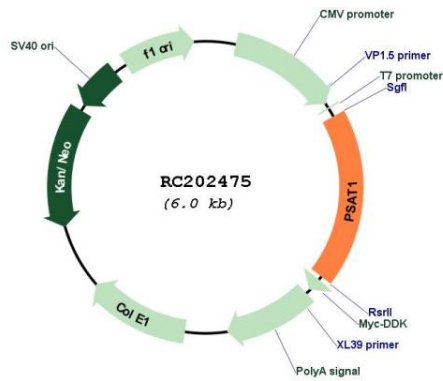
Domains: aminotran_5

Protein Pathways: Glycine, serine and threonine metabolism, Metabolic pathways, Vitamin B6 metabolism

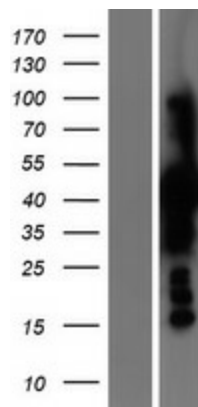
MW: 40.2 kDa

Gene Summary: This gene encodes a member of the class-V pyridoxal-phosphate-dependent aminotransferase family. The encoded protein is a phosphoserine aminotransferase and decreased expression may be associated with schizophrenia. Mutations in this gene are also associated with phosphoserine aminotransferase deficiency. Alternative splicing results in multiple transcript variants. Pseudogenes of this gene have been defined on chromosomes 1, 3, and 8. [provided by RefSeq, Jul 2013]

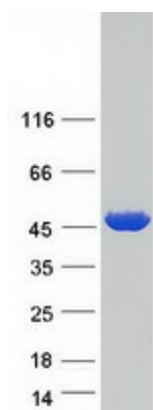
Product images:



Circular map for RC202475



Western blot validation of overexpression lysate (Cat# [LY409248]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202475 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSAT1 protein (Cat# [TP302475]). The protein was produced from HEK293T cells transfected with PSAT1 cDNA clone (Cat# RC202475) using MegaTran 2.0 (Cat# [TT210002]).