

Product datasheet for **RG209090**

Phosphoserine phosphatase (PSPH) (NM_004577) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phosphoserine phosphatase (PSPH) (NM_004577) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Phosphoserine phosphatase
Synonyms:	PSP; PSPHD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209090 representing NM_004577 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCTCCCACTCAGAGCTGAGGAAGCTTTTCTACTCAGCAGATGCTGTGTGTTTTGATGTTGACAGCA
CGGTATCAGAGAAGAAGGAATCGATGAGCTAGCCAAAATCTGTGGCGTTGAGGACGCGGTGCAGAAAT
GACACGGCGAGCCATGGGCGGGCAGTGCCTTTCAAAGCTGCTCTCACAGAGCGTTAGCCCTCATCCAG
CCCTCCAGGGAGCAGGTGCAGAGACTCATAGCAGAGCAACCCCCACACCTGACCCCGGCATAAGGGAGC
TGTAAGTCGCCTACAGGAGCGAAATGTTCAAGTTTTCTAATATCTGGTGGCTTTAGGAGTATTGTAGA
GCATGTTGCTTCAAAGCTCAATATCCAGCAACCAATGTATTTGCCAATAGGCTGAAATTCTACTTTAAC
GGTGAATATGCAGTTTTGATGAGAGCGCAACAGCTGAATCTGGTGGAAAAGGAAAAGTGATTAAC
TTTTAAAGGAAAAATTTCAATTTAAGAAAATAATCATGATTGGAGATGGTCCACAGATATGGAAGCCTG
TCCTCCTGCTGATGCTTTTATTGGATTTGGAGGAAATGTGATCAGGCAACAAGTCAAGGATAACGCCAAA
TGGTATACACTGATTTTGTAGAGCTGCTGGGAGAACTGGAAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG209090 representing NM_004577
 Red=Cloning site Green=Tags(s)

MVSHSELRKL FYSADAVCFD VDVSTVIREEGIDELAKICGVEDAVSEMTRAMGGAVPFKAALTERLALIQ
 PSREQVQRLIAEQPHLTPGIRELVSRLQERNVQVFLISGGFRSIVEHVASKLNIPATNVFANRLKFYFN
 GEYAGFDETPAESGGKGVIKLLKEKFHFKKIIMIGDGATDMEACPPADAFIGFGGNVIRQQVKDNAK
 WYITDFVELLGELEE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004577

ORF Size: 675 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.

RefSeq: [NM_004577.4](#)

RefSeq Size: 2142 bp

RefSeq ORF: 678 bp

Locus ID: 5723

UniProt ID: [P78330](#)

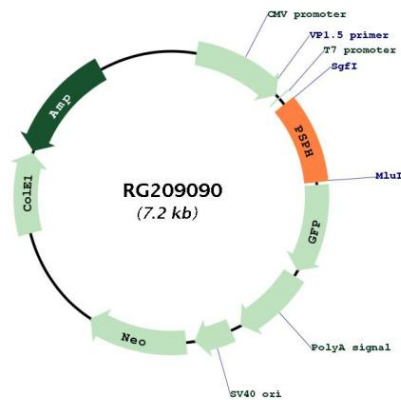
Cytogenetics: 7p11.2

Protein Families: Druggable Genome, Phosphatase

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

Gene Summary: The protein encoded by this gene belongs to a subfamily of the phosphotransferases. This encoded enzyme is responsible for the third and last step in L-serine formation. It catalyzes magnesium-dependent hydrolysis of L-phosphoserine and is also involved in an exchange reaction between L-serine and L-phosphoserine. Deficiency of this protein is thought to be linked to Williams syndrome. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG209090