

Product datasheet for **RG216795**

Prostaglandin D Synthase (PTGDS) (NM_000954) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Prostaglandin D Synthase (PTGDS) (NM_000954) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Prostaglandin D Synthase
Synonyms: L-PGDS; LPGDS; PDS; PGD2; PGDS; PGDS2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG216795 representing NM_000954
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTACTCATCACACGCTGTGGATGGGACTGGCCCTGCTGGGGTGCTGGGCGACCTGCAGGCAGCAC
 CGGAGGCCAGGTCTCCGTGCAGCCCACTTCCAGCAGGACAAGTTCTGGGGCGCTGGTTCAGCGCGGG
 CCTCGCCTCCAACCTCGAGCTGGCTCCGGGAGAAGAAGCGGCGTGTGCCATGTGCAAGTCTGTGGTGGCC
 CCTGCCACGGATGGTGGCTCAACCTGACCTCCACCTTCTCAGGAAAAACCAGTGTGAGACCCGAACCA
 TGCTGCTGCAGCCCGGGGTCCCTCGGCTCTACAGCTACCGGAGTCCCCTGGGCGAGCACCTACTC
 CGTGTCAGTGGTGGAGACCGACTACGACAGTACGCGCTGCTGTACAGCCAGGGCAGCAAGGGCCCTGGC
 GAGGACTTCCGCATGGCCACCCTCTACAGCCGAACCCAGACCCCAAGGGCTGAGTTAAAGGAGAAATTCA
 CCGCCTTCTGCAAGGCCAGGGTTCACAGAGGATACCATTGTCTTCTGCCCAAACCGATAAGTGCAT
 GACGGAACAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG216795 representing NM_000954
 Red=Cloning site Green=Tags(s)

MATHHTLWMGLALLGVLGDLQAAPEAQVSVQPNFQQDKFLGRWFSAGLASNSSWLREKKAALSMCKSVVA
 PATDGGNLNSTFLRKNQCETRTMLLQPAGSLGSYSRSPHWGSTYSVSVVETDYDQYALLYSQGSKGP
 EDFRMTLYSRTQTPRAELKEKFTAFCKAQGFTEDTIVFLPQTDKCMTEQ

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_000954

ORF Size: 570 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_000954.5](#), [NP_000945.3](#)

RefSeq Size: 837 bp

RefSeq ORF: 573 bp

Locus ID: 5730

UniProt ID: [P41222](#)

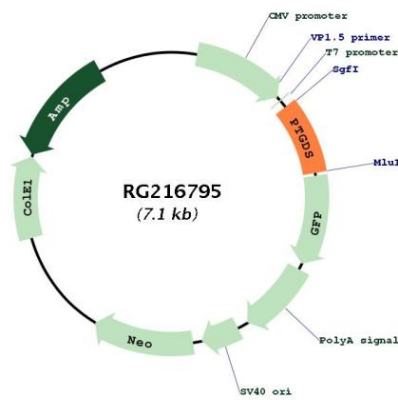
Cytogenetics: 9q34.3

Domains: lipocalin

Protein Pathways: Arachidonic acid metabolism, Metabolic pathways

Gene Summary: The protein encoded by this gene is a glutathione-independent prostaglandin D synthase that catalyzes the conversion of prostaglandin H2 (PGH2) to postaglandin D2 (PGD2). PGD2 functions as a neuromodulator as well as a trophic factor in the central nervous system. PGD2 is also involved in smooth muscle contraction/relaxation and is a potent inhibitor of platelet aggregation. This gene is preferentially expressed in brain. Studies with transgenic mice overexpressing this gene suggest that this gene may be also involved in the regulation of non-rapid eye movement sleep. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG216795