

Product datasheet for RC216795

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: Myc-DDK
Symbol: Prostaglandin D Synthase
Synonyms: L-PGDS; LPGDS; PDS; PGD2; PGDS; PGDS2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC216795 representing NM_000954
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCTACTCATCACACGCTGTGGATGGGACTGGCCCTGCTGGGGTGCTGGGCGACCTGCAGGCAGCAC
 CGGAGGCCAGGTCTCCGTGCAGCCCACTCCAGCAGGACAAGTTCTGGGGCGCTGGTTCAGCGCGGG
 CCTCGCCTCCAACCTCGAGCTGGCTCCGGGAGAAGAAGCGCGCTGTCCATGTGCAAGTCTGTGGTGGCC
 CCTGCCACGGATGGTGGCTCAACCTGACCTCCACCTTCTCAGGAAAAACAGTGTGAGACCCGAACCA
 TGCTGCTGCAGCCCGGGGTCCCTCGGCTCTACAGCTACCGGAGTCCCCTGGGCGAGCACCTACTC
 CGTGTCAGTGGTGGAGACCGACTACGACCAGTACGCGCTGCTGTACAGCCAGGGCAGCAAGGCCCTGGC
 GAGGACTTCCGCATGGCCACCCTCTACAGCCGAACCCAGACCCCAAGGGCTGAGTTAAAGGAGAAATTCA
 CCGCCTTCTGCAAGGCCAGGGTTCACAGAGGATACCATTGTCTTCTGCCCAAACCGATAAGTGCAT
 GACGGAACAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216795 representing NM_000954
 Red=Cloning site Green=Tags(s)

MATHHTLWMGLALLGVLGDLQAAPAEQVSVQPNFQQDKFLGRWF SAGLASNSSWLREKKAALSMCKSVVA
 PATDGGNLNSTFLRKNQCETRTMLLQPAGSLGSYSRSPHWGSTYSVSVVETDYDQYALLYSQSGKPG
 EDFRMTLYSRTQTPRAELKEKF TAFCKAQGFTEDTIVFLPQTDKCMTEQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV



[View online »](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6043_b03.zip

Restriction Sites: SgfI-MluI

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

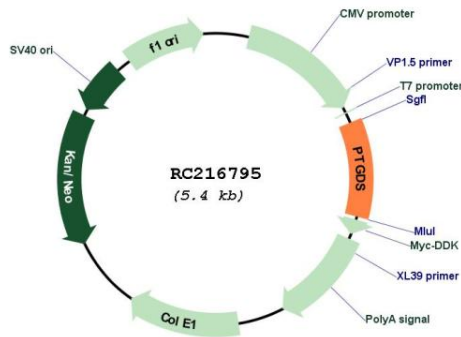
RefSeq ORF: 573 bp

Locus ID: 5730

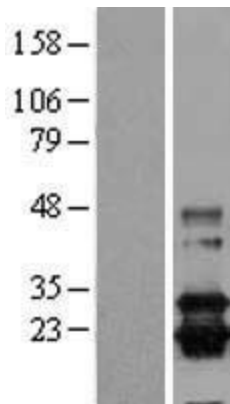
UniProt ID: [P41222](#)
Cytogenetics: 9q34.3
Domains: lipocalin
Protein Pathways: Arachidonic acid metabolism, Metabolic pathways
MW: 20.8 kDa

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]

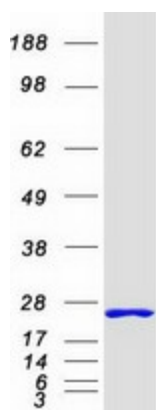
Product images:



Circular map for RC216795



Western blot validation of overexpression lysate (Cat# [LY400343]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216795 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTGDS protein (Cat# [TP316795]). The protein was produced from HEK293T cells transfected with PTGDS cDNA clone (Cat# RC216795) using MegaTran 2.0 (Cat# [TT210002]).