

Product datasheet for RC205362

GAPDHS (NM_014364) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GAPDHS (NM_014364) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GAPDHS
Synonyms:	GAPD2; GAPDH-2; GAPDS; HEL-S-278; HSD-35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205362 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGAAGCGGACATCGTCTCACCAATGTCACCGTTGTCAGTTGCTGCGACAGCCGTGCCCGGTGA
CCAGAGCACCGCCCCACCTGAGCCTAAGGCTGAAGTAGAGCCCCAGCCACAACCAGAGCCACACCAGT
CAGGGAGGAAATAAAGCCACCACCGCCACCCTGCTCCTCACCCGCTACTCCTCCTAAGATGGTG
TCTGTGGCCCGGAGCTGACTGTGGCATCAATGGATTTGGACGCATCGGTGCGCTGGTCTGCGCGCT
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GATGAGGTGCTCTACGGACTTCTCGGTGATACCCACTCGTCCATCTCGATGCTAAGCCGGCATTG
CGCTCAATGACAATTCGTGAAGCTATTTTCATGGTACGACAACGAATATGGCTACAGTACCAGGTTGGT
CGACCTCTCCGTACATGTTACAGCCGAGACAAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205362 protein sequence
Red=Cloning site Green=Tags(s)

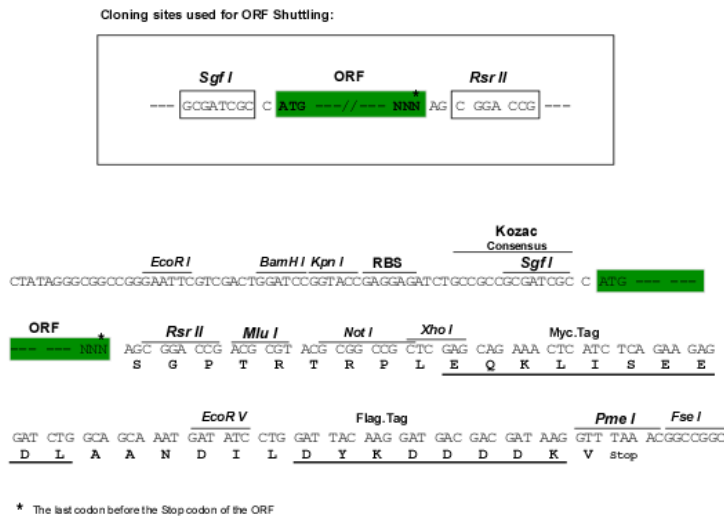
MSKRDIVLTNVTVVQLLRQPCPVTRAPPPPEPKAEVEPQPQPEPTPVREEIKPPPPPLPPHPATPPPKMV
 SVARELTVGINGFGRIGRLVLRACMEKGVKVVAVNDPFIDPEYMYMFKYDSTHGRYKGSVEFRNGQLVV
 DNHEISVYQCKEPKQIPWRAVGSFYVVESTGVYLSIQAASDHISAGAQRVVISAPSPDAMPFVMGVNEND
 YNPGSMNIVSNASCTTNCLAPLAKVIHERFGIVEGLMTTVHSYATQKTVDGSPSRKAWRDGRGAHQNIIP
 ASTGAAKAVTKVIPLEKGLTGMAFRVPTPDVSVVDLTCRLAQPAPYSAIKEAVKAAAKGPMAGILAYTE
 DEVVSTDFLGDTHSSIFDAKAGIALNDFVKLISWYDNEYGYSHRVVDLLRYMFSRDK

SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6186_a12.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_014364

ORF Size: 1224 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_014364.5](#)

RefSeq Size: 1492 bp

RefSeq ORF: 1227 bp

Locus ID: 26330

UniProt ID: [O14556](#)

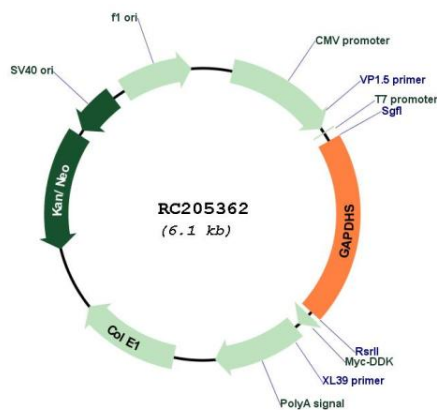
Cytogenetics: 19q13.12

Protein Families: Druggable Genome

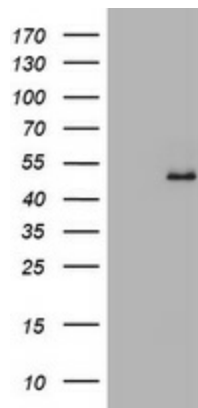
MW: 44.5 kDa

Gene Summary: This gene encodes a protein belonging to the glyceraldehyde-3-phosphate dehydrogenase family of enzymes that play an important role in carbohydrate metabolism. Like its somatic cell counterpart, this sperm-specific enzyme functions in a nicotinamide adenine dinucleotide-dependent manner to remove hydrogen and add phosphate to glyceraldehyde 3-phosphate to form 1,3-diphosphoglycerate. During spermiogenesis, this enzyme may play an important role in regulating the switch between different energy-producing pathways, and it is required for sperm motility and male fertility. [provided by RefSeq, Jul 2008]

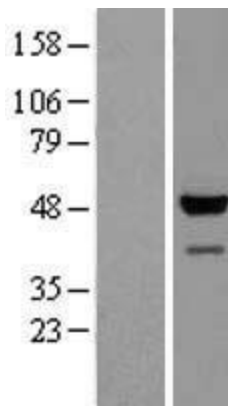
Product images:



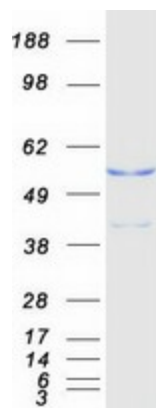
Circular map for RC205362



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GAPDHS (Cat# RC205362, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GAPDHS (Cat# [TA505454]). Positive lysates [LY402320] (100ug) and [LC402320] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402320]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205362 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GAPDHS protein (Cat# [TP305362]). The protein was produced from HEK293T cells transfected with GAPDHS cDNA clone (Cat# RC205362) using MegaTran 2.0 (Cat# [TT210002]).