

Product datasheet for **RC205788**

PDF (NM_022341) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDF (NM_022341) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205788 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCGGCTGTGGGGCGCGCTGAGTCTTCGGCCACTGTGGGCGGCCGTGCCGTGGGGCGGGCGGCAG
CCGTCGGTGTCCGGGCTTGCAGCTCCACGGCCGCCCGGACGGCGTCGAGGGCCCGGCGCTGCGGCGCTC
CTATTGGCGCCACCTGAGGCGTCTGGTGTGGTCTCCCGAACCGCCGTTCTCGCACGTGTCCAAGTC
GGGACCCCGTGTGCTGCGGGCGTGGCGGCCCGGTGGAGCGGGCGCAGCTAGGCGGGCCGAGCTGCAGC
GGCTGACGCAACGGTGGTCCAGGTGATGCGGGCGCGGCTGCGTGGCCCTAAGCGCGCCGAGCTGGG
GGTCCCGCGGCAGGTGCTGGCGCTGGAGCTCCCGAGGCGCTGTGTCGGGAGTGCCCGCCCGCCAGCGC
GCGCTCCGCCAAATGGAGCCCTTCCCTGCGCGTGTTCGTGAACCCAGCCTGCGAGTGCTTGACAGCC
GCCTGGTACCTTTCCCGAGGGCTGCGAGAGCGTCGCGGCTTCTGGCCTGCGTGCCCCGCTTCCAGGC
GGTGCAGATCTCAGGGCTGGACCCAAATGGAGAACAGGTGGTGTGGCAGGCGAGCGGGTGGGCGAGCCGC
ATCATCCAGCAGAGATGGACCACCTGCAGGGCTGCCTGTTTATTGACAAATGGACAGCAGGACGTTTCA
CAAACGTCTATTGGATGAAGGTGAATGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205788 protein sequence
 Red=Cloning site Green=Tags(s)

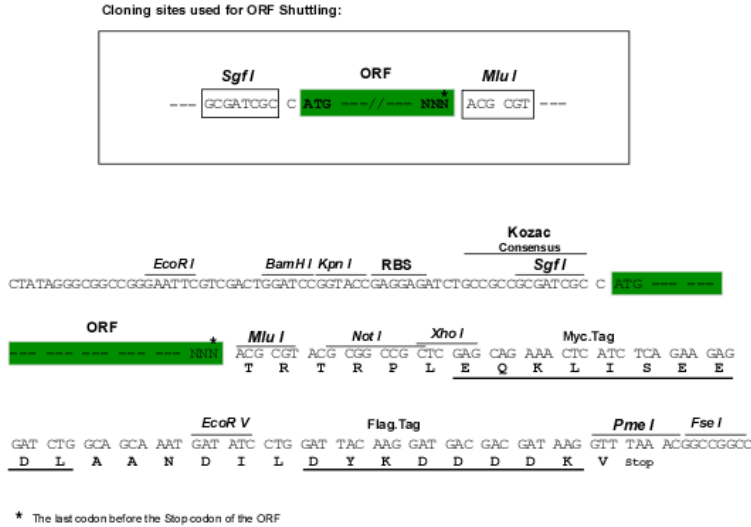
MARLWGALSLRPLWAAVPWGGAAAVGVRACSSSTAAPDGVEGPALRRSYWRHLRRLVLGPPEPPF SHVCQV
 GDPVLRGVAAPVERAQLGGPELQRLTQRLVQVMRRRCVGLSAPQLGVPRQVLALELPEALCRECPRQR
 ALRQMEPFPLRVFVNPSLRVLD SRLVTFPEGCESVAGFLACVPRFQAVQISGLDPNGEQVWQASGWAAR
 IIQHMDHLQGCLFIDKMSRTFTNVYWMKVND

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6268_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022341

ORF Size: 729 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_022341.1](#), [NP_071736.1](#)

RefSeq Size: 1180 bp

RefSeq ORF: 732 bp

Locus ID: 64146

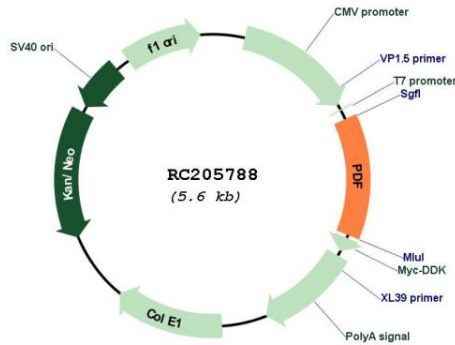
UniProt ID: [Q9HBH1](#)

Cytogenetics: 16q22.1

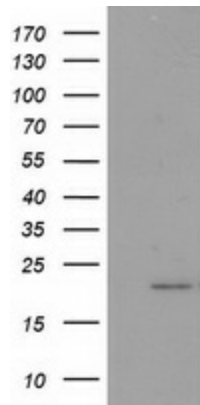
MW: 27 kDa

Gene Summary: Protein synthesis proceeds after formylation of methionine by methionyl-tRNA formyl transferase (FMT) and transfer of the charged initiator f-met tRNA to the ribosome. In eubacteria and eukaryotic organelles the product of this gene, peptide deformylase (PDF), removes the formyl group from the initiating methionine of nascent peptides. In eubacteria, deformylation of nascent peptides is required for subsequent cleavage of initiating methionines by methionine aminopeptidase. The discovery that a natural inhibitor of PDF, actinonin, acts as an antimicrobial agent in some bacteria has spurred intensive research into the design of bacterial-specific PDF inhibitors. In human cells, only mitochondrial proteins have N-formylation of initiating methionines. Protein inhibitors of PDF or siRNAs of PDF block the growth of cancer cell lines but have no effect on normal cell growth. In humans, PDF function may therefore be restricted to rapidly growing cells. [provided by RefSeq, Nov 2008]

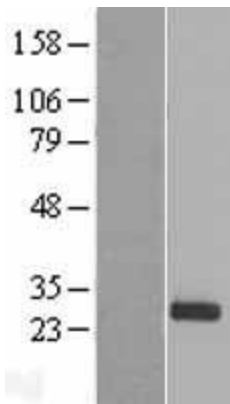
Product images:



Circular map for RC205788



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PDF (Cat# RC205788, 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-PDF (Cat# [TA502988]). Positive lysates [LY411712] (100ug) and [LC411712] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411712]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205788 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).