

Product datasheet for **RG228112**

DPYD (NM_001160301) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DPYD (NM_001160301) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: DPYD
Synonyms: DHP; DHPDHASE; DPD
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG228112 representing NM_001160301
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCTGTGCTCAGTAAGGACTCGGCGGACATCGAGAGTATCCTGGCTTTAAATCCTCGAACACAAA
CTCATGCAACTCTGTGTTCCACTCGGCCAAGAAATTAGACAAGAAACATTGGAAAAGAAATCCTGATAA
GAACTGCTTTAATTGTGAGAAGCTGGAGAATAATTTTGATGACATCAAGCACACGACTCTTGGTGAGCGA
GGAGCTCTCCGAGAAGCAATGAGATGCCTGAAATGTGCAGATGCCCGTGTGAGAAGAGCTGTCCAACTA
ATCTTGATATTAATCATTCAACAAGTATTGCAAACAAGAAGTATTATGGAGCTGCTAAGATGATATT
TTCTGACAACCCACTTGGTCTGACTTGTGGAATGGTATGTCCAACCTCTGATCTTTGTGTAGGTGGATGC
AATTTATATGCCACTGAAGAGGGACCCATTAATATTGGTGGATTGCAGCAATTTGCTACTGAGACTTTGA
TCCTGGCTTTCTTTAATGAATCATTTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG228112 representing NM_001160301
Red=Cloning site Green=Tags(s)

MAPVLSKDSADIESILALNPRTQTHATLCSTSAKKLDKHKHWRNPKNCFNCEKLENNFDDIKHTTLGER
GALREAMRCLKCADAPCQKSCPTNLDIKSFITSIANKNYYGAAKMIFSDNPLGLTCGMVCPSTDLVGGC
NLYATEEGPINIGGLQQFATETLILAFSLMNL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

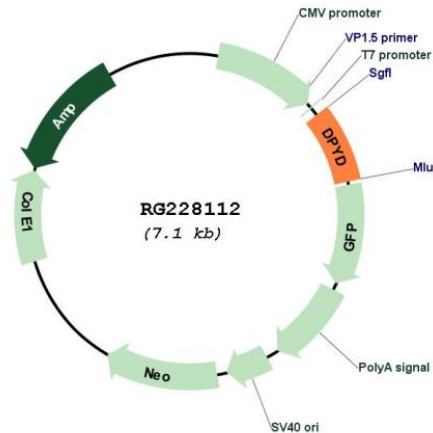


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001160301

ORF Size: 519 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:	<ol style="list-style-type: none">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:	<u>NM_001160301.1, NP_001153773.1</u>
RefSeq Size:	1789 bp
RefSeq ORF:	522 bp
Locus ID:	1806
UniProt ID:	<u>Q12882</u>
Cytogenetics:	1p21.3
Protein Families:	Druggable Genome
Protein Pathways:	beta-Alanine metabolism, Drug metabolism - other enzymes, Metabolic pathways, Pantothenate and CoA biosynthesis, Pyrimidine metabolism
Gene Summary:	The protein encoded by this gene is a pyrimidine catabolic enzyme and the initial and rate-limiting factor in the pathway of uracil and thymidine catabolism. Mutations in this gene result in dihydropyrimidine dehydrogenase deficiency, an error in pyrimidine metabolism associated with thymine-uraciluria and an increased risk of toxicity in cancer patients receiving 5-fluorouracil chemotherapy. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009]