

Product datasheet for SC316297

DPYD (NM_000110) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: DPYD (NM_000110) Human Untagged Clone
Tag: Tag Free
Symbol: DPYD
Synonyms: DHP; DHPDHASE; DPD
Mammalian Cell Selection: None
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000110 edited
TGAGGACGCAAGGAGGGTTTGTCACTGGCAGACTCGAGACTGTAGGCACTGCCATGGCCC
CTGTGCTCAGTAAGGACTCGGCGACATCGAGAGTATCCTGGCTTTAAATCCTCGAACAC
AAACTCATGCAACTCTGTGTTCCACTTCGGCCAAGAAATTAGACAAGAAACATTGAAAA
GAAATCCTGATAAGAAGCTGCTTTAATTGTGAGAAGCTGGAGAATAATTTTGATGACATCA
AGCACACGACTCTTGGTGTGAGCGAGGAGCTCTCCGAGAAGCAATGAGATGCCTGAAATGTG
CAGATGCCCGTGTGAGAAGAGCTGTCCAATACTTGTGATTTAAATCATTTCATCACAA
GTATTGCAACAAGAAGCTATTATGGAGCTGCTAAGATGATTTTTCTGACAACCCACTTG
GTCTGACTTGTGGAATGGTATGTCCAACCTCTGATCTTTGTGTAGGTGGATGCAATTTAT
ATGCCACTGAAGAGGGACCCATTAATATTGGTGGATTGCAGCAATTTGCTACTGAGGTAT
TCAAAGCAATGAGTATCCACAGATCAGAAATCCTTCGCTGCCTCCCCAGAAAAATGT
CTGAAGCCTATTCTGCAAGATTGCTCTTTTTGGTGTCTGGCCTGCAAGTATAAGTTGTG
CTTCTTTTTGGCTCGATTGGGGTACTCTGACATCACTATATTTGAAAAACAAGAATATG
TTGGTGGTTAAGTACTTCTGAAATTCCTCAGTCCGGCTGCCGTATGATGTAGTGAATT
TTGAGATTGAGCTAATGAAGGACCTTGGTGTAAAGATAATTTGCGGTAAGGCTTTTCAG
TGAATGAAATGACTCTTAGCACTTTGAAAGAAAAAGGCTACAAAGCTGCTTTCATTGGAA
TAGGTTTGCCAGAACCAATAAAGATGCCATCTTCCAAGGCTGACGCAGGACCAGGGGT
TTTATACATCAAAGACTTTTTGCCACTTGTAGCCAAAGGCTGATGATGACTTGGAGCTGGAGACA
CCTGTCACTCTCCATTGCCATCGATACGGGGAGTCGTGATTGTACTTGGAGCTGGAGACA
CTGCCTTTGACTGTGCAACATCTGCTCTACGTTGTGGAGCTCGCCGTGTTCATCGTCT
TCAGAAAAGGCTTTGTTAATATAAGAGCTGTCCCTGAGGAGATGGAACCTGCTAAGGAAG
AAAAGTGTGAATTTCTGCCATTCTGTCCACGGAAGGTTATAGTAAAAGGTGGGAGAA
TTGTTGCTATGCAGTTTGTTCGGACAGAGCAAGATGAACTGGAAAAATGGAATGAAGATG
AAGATCAGATGGTCCATCTGAAAGCCGATGTGGTCATCAGTGCCTTTGGTTCAGTTCTGA
GTGATCCTAAAGTAAAAGAAGCCTTGAGCCCTATAAAATTAACAGATGGGGTCTCCAG
AAGTAGATCCAGAACTATGCAAACTAGTGAAGCATGGGTATTTGCAGGTGGTGTGTCG
TTGGTTTGGCTAACACTACAGTGAATCGGTGAATGATGGAAGCAAGCTCTTGTGTACA



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TTCACAAATACGTACAGTACAATATGGAGCTTCCGTTTCTGCCAAGCCTGAACTACCCC
 TCTTTTACACTCCTATTGATCTGGTGGACATTAGTGTAGAAAATGGCCGGATTGAAGTTTG
 TAAATCCTTTTGGTCTTGTAGCGCAACTCCAGCCACCAGCACATCAATGATTGGAAGAG
 CTTTTGAAGCTGGATGGGTTTTGCCCTCACAAAACCTTCTCTTGTATAAGGACATTG
 TGACAAATGTTTTCCCCAGAATCATCCGGGGAACCACTCTGGCCCCATGTATGGCCCTG
 GACAAAGCTCCTTTCTGAATATTGAGCTCATCAGTGAGAAAACGGCTGCATATTGGTGTG
 AAAGTGTCACTGAACTAAAGGCTGACTTCCAGACAACATTGTGATTGCTAGCATTATGT
 GCAGTTACAATAAAAATGACTGGACGGAACCTGCCAAGAAGTCTGAGATTCTGGAGCAG
 ATGCCCTGGAGTTAAATTTATCATGTCCACATGGCATGGGAGAAAAGGAATGGGCCTGG
 CCTGTGGGCAGGATCCAGAGCTGGTGGGAACATCTGCCGCTGGTTAGGCAAGCTGTTT
 AGATTCTTTTTTTGCCAAGCTGACCCCAAATGCACTGATATTGTGAGCATCGCAAGAG
 CTGCAAAGGAAGGTGGTCCCAATGGCGTTACAGCCACCAACTGTCTCAGGTCTGATGG
 GATTAATCTGATGGCACACCTTGGCCAGCAGTGGGATTGCAAAGCGAACTACATATG
 GAGGAGTGTCTGGGACAGCAATCAGACCTATTGCTTTGAGAGCTGTGACCTCCATTGCTC
 GTGCTCTGCCTGGATTTCCATTTTGGCTACTGGTGAATTGACTCTGCTGAAAGTGGTC
 TTCAGTTTCTCCATAGTGGTGTCTCCGCTCCTCCAGGTATGCAGTGCCATTGAGAATCAGG
 ATTTCACTGTGATCGAAGACTACTGCACTGGCCTCAAAGCCCTGCTTTATCTGAAAAGCA
 TTGAAGAACTACAAGACTGGGATGGACAGAGTCCAGCTACTGTGAGTACCAGAAAAGGGA
 AACCAGTTCACGTATAGCTGAACTCATGGACAAGAACTGCCAAGTTTTGGACCTTATC
 TGGAACAGCGCAAGAAAATCATAGCAGAAAACAAGATTAGACTGAAAGAACAATAATGTA
 CTTTTTACCACCTTAAGAGAACTGTTTTATCCCAAAAGGCCTATTCTACCATCAAGG
 ATGTAATAGGAAAAGCACTGCAGTACCTTGAACATTTGGTGAATTGAGCAACGTAGAGC
 AAGTTGTGGCTATGATTGATGAAGAAAATGTGTCAACTGTGTAATGCTACATGACCT
 GTAATGATTCTGGCTACCAGGCTATACAGTTTGATCCAGAAAACCCACCTGCCACCATAA
 CCGACACTTGTACAGGCTGACTCTGTGTCTCAGTGTGGCCCTATTGTGACTGCATCA
 AAATGGTTTTCCAGGACAACACCTTATGAACCAAAGAGAGGCGTACCCTTATCTGTGAATC
 CGGTGTGTTAAGGTGATTTGTGAAACAGTTGCTGTGAACCTTTCATGTCACCTACATATGC
 TGATCTTTTAAAATCATGATCCTTGTGTTGAGCTCTTTCCAAATTAACAATAATACAT
 TTTCTAAATAAAAATATGTAATTTCAAATACATTTGTAAGTGTAAAAATGTCTCATGT
 CAATGACCATTCAATTAGTGGTCATAAAAATAGAATAATTCTTTTCTGAGGATAGTAGTTA
 AATAACTGTGTGGCAGTTAATTGGATGTTCACTGCCAGTTGTCTTATGTGAAAAATTAAC
 TTTTTGTGGCAATTAGTGTGACAGTTTCAAATTTGCCCTATGCTGTGCTCCA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000110 unedited
 GAGGATTGTATACGACTCCTATAGGGCGGCCGATATTCGCCCTTTGAGGACGCAAGGA
 GGGTTTGTCACTGGCAGACTCGAGACTGTAGGCACTGCCATGGCCCTGTGCTCAGTAAG
 GACTCGGCGGACATCGAGAGTATCCTGGCTTTAAATCCTCGAACACAACTCATGCAACT
 CTGTGTTCCACTTCGGCCAAGAAATTAGACAAGAAACATTGAAAAGAAATCCTGATAAG
 AACTGCTTTAATTGTGAGAAGCTGGAGAATAATTTTGTGACATCAAGCACAGACTCTT
 GGTGAGCGAGGAGCTCTCCGAGAAGCAATGAGATGCCTGAAATGTGCAGATGCCCCGTG
 CAGAAGAGCTGTCCAATAATCTTGATATTAATCATTATCACAAAGTATTGCAAACAAG
 AACTATTATGGAGCTGCTAAGATGATATTTTCTGACAACCCTTGGTCTGACTTGTGGA
 ATGGTATGTCCAACCTCTGATCTTTGTGTAGGTGGATGCAATTTATATGCCACTGAAGAG
 GGACCCATTAATATTGGTGGATTGCAGCAATTTGCTACTGAGGTATTCAAAGCAATGAGT
 ATCCCACAGATCAGAAAATCCTTCGCTGCCTCCCCAGAAAAAATGTCTGAAGCCTATTCT
 GCAAAGATTGCTTTTTTGGTGTGGCCTGCAAGTATAAGTTGTCTTCTTTTTTGGCT
 CGATTGGGGTACTCTGACATCACTATATTTGAAAAACAAGAATATGTTGGTGGTTAAGT
 ACTTCTGAAATCCTCAGTTCGCTGCCGTATGATGTAGTGAATTTTGTGATTGAGCTAA
 TGAAGACCTTGGTGTAAAGATAATTTGCGTAAAAGCCTTTCAGTGAATGAATGACTTCT
 TAGCACTTTGAAAGAAAAAGGCTAACAAAG

Restriction Sites:

Please inquire

ACCN:	NM_000110
Insert Size:	3500 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_000110.3</u> , <u>NP_000101.2</u>
RefSeq Size:	4451 bp
RefSeq ORF:	3078 bp
Locus ID:	1806
UniProt ID:	<u>Q12882</u>
Cytogenetics:	1p21.3
Domains:	DHodehase, fer4
Protein Families:	Druggable Genome
Protein Pathways:	beta-Alanine metabolism, Drug metabolism - other enzymes, Metabolic pathways, Pantothenate and CoA biosynthesis, Pyrimidine metabolism
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>