



## DPYD peptide (DAG-P0439)

This product is for research use only and is not intended for diagnostic use.

### PRODUCT INFORMATION

|                              |   |
|------------------------------|---|
| <b>Antigen Description</b>   | 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] |
| <b>Specificity</b>           | Found in most tissues with greatest activity found in liver and peripheral blood mononuclear cells.   |
| <b>Purity</b>                | 70 - 90% by HPLC.   |
| <b>Conjugate</b>             | Unconjugated  |
| <b>Sequence Similarities</b> | Belongs to the dihydropyrimidine dehydrogenase family. Contains 3 4Fe-4S ferredoxin-type domains.   |
| <b>Format</b>                | Liquid  |
| <b>Preservative</b>          | None  |
| <b>Storage</b>               | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.   |

### GENE INFORMATION

|                        |   |
|------------------------|---|
| <b>Gene Name</b>       | <a href="#">DPYD dihydropyrimidine dehydrogenase [ Homo sapiens (human) ]</a> |
| <b>Official Symbol</b> | DPYD  |
| <b>Synonyms</b>        | DPYD; dihydropyrimidine dehydrogenase; DHP; DPD; DHPDHASE; dihydropyrimidine  |

dehydrogenase [NADP(+)]; dihydrouracil dehydrogenase; dihydrothymine dehydrogenase;

|                            |   |
|----------------------------|---|
| <b>Entrez Gene ID</b>      | <a href="#">1806</a>  |
| <b>mRNA Refseq</b>         | <a href="#">NM_000110.3</a>   |
| <b>Protein Refseq</b>      | <a href="#">NP_000101.2</a>   |
| <b>UniProt ID</b>          | Q12882  |
| <b>Chromosome Location</b> | 1p22  |
| <b>Pathway</b>             | Drug metabolism - other enzymes, organism-specific biosystem; Drug metabolism - other enzymes, conserved biosystem; Fluoropyrimidine Activity, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem; Pantothenate and CoA biosynthesis, organism-specific biosystem; Pantothenate and CoA biosynthesis, conserved biosystem; Pyrimidine catabolism, organism-specific biosystem; Pyrimidine degradation, uracil => beta-alanine, thymine => |
| <b>Function</b>            | 4 iron, 4 sulfur cluster binding; NADP binding; dihydroorotate oxidase activity; dihydropyrimidine dehydrogenase (NADP+) activity; dihydropyrimidine dehydrogenase (NADP+) activity; dihydropyrimidine dehydrogenase (NADP+) activity; dihydropyrimidine dehydr   |