

## Recombinant Human PDF, GST-tagged

**Cat. No.** PDF-7830H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Recombinant Human PDF(1 a.a. - 108 a.a.), fused with GST-tag at N-terminal, was expressed in wheat germ.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | Wheat Germ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | <p>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.</p> |
| <b>Molecular Mass</b>   | 39.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>      | <p>MTRRWGPSSQLQHQLPPRSHAWSPRAQPARREGERRRRPNRPAWGPSRRPLP<br/>PERGLDPNGEQVWQASGWAAR IIQHEMDHLQGCLFIDKMDSRTFTNVYWMKVN</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                            | D                                                                                                                                                                 |
| <b>Applications</b>        | ELISA; WB-Re; AP; Array                                                                                                                                           |
| <b>Notes</b>               | Best use within three months from the date of receipt of this protein.                                                                                            |
| <b>Storage</b>             | Store at -80°C. Aliquot to avoid repeated freezing and thawing.                                                                                                   |
| <b>Storage Buffer</b>      | 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.                                                                                          |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                   |
| <b>Gene Name</b>           | PDF peptide deformylase (mitochondrial) [ Homo sapiens (human) ]                                                                                                  |
| <b>Official Symbol</b>     | PDF                                                                                                                                                               |
| <b>Synonyms</b>            | PDF; peptide deformylase (mitochondrial); peptide deformylase, mitochondrial; polypeptide deformylase; peptide deformylase-like protein; NP_071736.1; EC 3.5.1.88 |
| <b>Gene ID</b>             | 64146                                                                                                                                                             |
| <b>mRNA Refseq</b>         | NM_022341                                                                                                                                                         |
| <b>Protein Refseq</b>      | NP_071736                                                                                                                                                         |
| <b>UniProt ID</b>          | Q9HBH1                                                                                                                                                            |
| <b>Chromosome Location</b> | 16q22.1                                                                                                                                                           |
| <b>Function</b>            | iron ion binding; peptide deformylase activity                                                                                                                    |

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