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OriGene Technologies, Inc.

# **Product datasheet for TA502988**

## PDF Mouse Monoclonal Antibody [Clone ID: OTI3F3]

#### **Product data:**

**Product Type: Primary Antibodies** 

Clone Name: OTI3F3 **Applications:** FC. IF. WB

**Recommend Dilution:** WB 1:500~2000, IF 1:100, FLOW 1:100

Reactivity: Human Host: Mouse Isotype: IgG2b

Clonality: Monoclonal

Immunogen: Full length human recombinant protein of human PDF (NP\_071736) produced in E.coli.

PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide. Formulation:

Concentration: 0.78 mg/ml

**Purification:** Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography

(protein A/G)

**Predicted Protein Size:** 19.4 kDa

Gene Name: peptide deformylase, mitochondrial Database Link: NP 071736 Entrez Gene 64146 Human

Background: 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

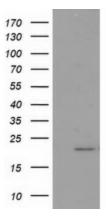
methionines by methionine aminopeptidase. The discovery that a natural inhibitor of PDF, actinonin, acts as an antimicrobial agent in some bacteria has spurred intensive research into the design of bacterial-specific PDF inhibitors. In human cells, only mitochondrial proteins have N-formylation of initiating 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]

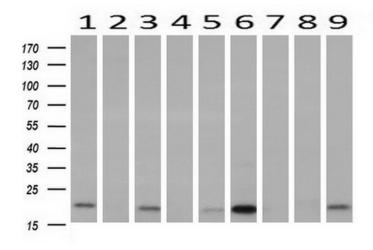




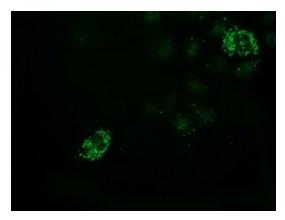
## **Product images:**



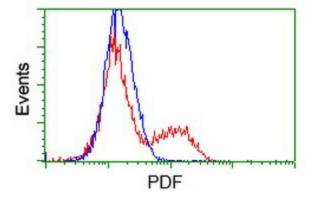
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PDF ([RC205788], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDF. Positive lysates [LY411712] (100ug) and [LC411712] (20ug) can be purchased separately from OriGene.



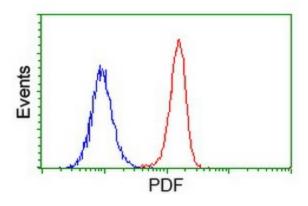
Western blot analysis of extracts (10ug) from 9 Human tissue by using anti-PDF monoclonal antibody at 1:200 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon).



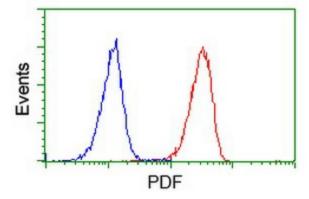
Anti-PDF mouse monoclonal antibody (TA502988) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PDF ([RC205788]).



HEK293T cells transfected with either [RC205788] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-PDF antibody (TA502988), and then analyzed by flow cytometry.



Flow cytometric Analysis of Hela cells, using anti-PDF antibody (TA502988), (Red), compared to a nonspecific negative control antibody ([TA50011]), (Blue).



Flow cytometric Analysis of Jurkat cells, using anti-PDF antibody (TA502988), (Red), compared to a nonspecific negative control antibody ([TA50011]), (Blue).