# Recombinant Mouse Peroxiredoxin 3

Prdx3-742M Mouse
Lot. No. (See product label)

## *Specification*

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| **Product Overview** | Recombinant Mouse Peroxiredoxin 3 was produced in*E.coli.*MW = 21.6 kDa. |
| **Description** | Peroxiredoxin (Prx) is a growing peroxidase family, whose mammalian members have been known to connect with cell proliferation, differentiation, and apoptosis. Many isoforms (about 50 proteins), collected in accordance to the amino acid sequence homology, particularly amino-terminal region containing active site cysteine residue, and the thiol-specific antioxidant activity, distribute throughout all the kingdoms. Among them, mammalian Prx consists of 6 different members grouped into typical 2- Cys, atypical 2-Cys Prx, and 1-Cys Prx. Except Prx VI belonging to 1-Cys Prx subgroup, the other five 2-Cys Prx isotypes have the thioredoxin-dependent peroxidase (TPx) activity utilizing thioredoxin, thioredoxin reductase, and NADPH as a reducing system. Mammalian Prxs are 20 – 30 kilodalton in molecular size and vary in subcellular localization: Prx I, II, and VI in cytosol, Prx III in mitochondria, Prx IV in ER and secretion, Prx V showing complicated distribution including peroxisome, mitochondria and cytosol. |
| **Source** | E.coli. |
| **Specific Activity** | 0.9 U/mg (Unit definition : One unit will cause the oxidation of 1.0 μmole of NADPH at 25°C at pH 7.5). |
| **Condition** | Lyophilized powder containing HEPES, pH7.0. |
| **Reconstitution** | Reconstitute with 1.1ml distilled water to obtain 1.0mg/ml. |

## *Gene Information*

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| **Gene Name** | Prdx3 peroxiredoxin 3 [ Mus musculus ] |
| **Synonyms** | Prdx3; peroxiredoxin 3; Aop1; Ef2l; Mer5; Prx3; SP22; TDXM; D0Tohi1; AW822249; thioredoxin-dependent peroxide reductase, mitochondrial; AOP-1; Prx III; perioredoxin-3; peroxiredoxin III; OTTMUSP00000023435; antioxidant protein; anti-oxidant protein 1; mitochondrial Trx dependent peroxide reductase; mitochondrial thioredoxin dependent peroxide reductase; EC 1.11.1.15 |
| **Gene ID** | 11757 |
| **mRNA Refseq** | NM_007452 |
| **Protein Refseq** | NP_031478 |
| **UniProt ID** | P20108 |
| **Chromosome Location** | 19 D3; 19 50.0 cM |
| **Function** | antioxidant activity; identical protein binding; oxidoreductase activity; peroxidase activity; |

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| | peroxiredoxin activity |


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