

Molecular Cloning of a cDNA Encoding a Putative Family of the Antioxidant Protein, Peroxiredoxin, from the Firefly, *Pyrocoelia rufa*

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Peroxiredoxin enzymes exhibit hydrogen peroxide and alkyl hydroperoxide reductase activities. Peroxiredoxins are considered to be involved in oxidative stress protection mechanisms but also in cell differentiation, proliferation, immune response, and apoptosis. Here, we have isolated the cDNA encoding the putative family of antioxidant protein, peroxiredoxin, from the firefly, *Pyrocoelia rufa*. The 555 base cDNA sequence codes for a 185 amino acid protein with a molecular mass of approximately 21 kDa. The deduced protein contains two conserved cysteines. Alignment of the deduced protein was performed with known peroxiredoxin family. The deduced protein of *P. rufa* peroxiredoxin showed 71.1% sequence identity to that of *Drosophila melanogaster*. Northern blot analysis revealed that the *P. rufa* peroxiredoxin is specifically expressed in the fatbody of *P. rufa* larvae.