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Characterization of Mouse Peroxiredoxin III Genomic DNA and Its Expression

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Peroxiredoxins (Prxs) possess protective activity against oxygen radicals generated by thiol-catalyzed oxidative systems. We already reported the genomic structure and its expression of mouse *Prx I, II,* and *1-Cys Prx*. However, the *Prx III* has not been determined. That was initially defined transiently expressed gene, mouse *MER5*, of murine erythroleukaemia cell differentiation. In addition, this protein was recently redefined a member of the thiol-specific antioxidant gene family. In this report, we isolated genomic DNA sequences of the *Prx III* genes from the mouse and characterized their molecular genetic features. It comprises six introns and seven exons. The *Prx III* gene was abundantly expressed in all of investigated tissues of the adult mice as well as in early developing embryos.

Key words) ***Peroxiredoxin, antioxidant, gene expression, cloning***