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Mutation Spectrum of Manganese Peroxidase Gene in the *Pleurotus ostretus* Mutants Induced by Gamma-Ray Radiation

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To investigate the mutational spectrum of gamma-ray radiation, manganese peroxidase gene (mnp) involved in degrading lignin which is the recalcitrant cell well polymer were cloned by PCR in the *Pleurotus ostreatus* mutants induced by gamma-ray radiation. Among the 1941 base pairs (mnp genes) of 4 mutants (P0-5, -6, -15 and -16), nine mutational hot spots in which mutations occurred simultaneously between mutants were found and additionally 6 mutations were also found at different positions. These mutation-spectra were predominantly A:T \rightarrow G:C transitions (50.1%). By the analysis of putative amino acid sequences, P0-5 and P0-16 mutants have 3 and 1 mutated residue, respectively. These results suggest that the mutational hot spots resulted from gamma-ray radiation could be in some gene, at least mnp of P. ostreatus.