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## **Analysis of *RAD4* gene Required for Nucleotide Excision Repair of UV-induced DNA Damage in Yeast**

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The *RAD4* gene is essential for the nucleotide excision repair in *Saccharomyces cerevisiae*. It has been known that the deduced amino acid sequence of Rad4 protein contains three DNA-dependent ATPase/helicase motifs. To determine the biochemical activities and functional role of *RAD4* gene, Rad4 protein was expressed and purified. Immunoblot analysis showed a specific band of 21 kDa, which was very well matched with the size of open reading frame of *RAD4* gene. The purified Rad4 protein had no detectable helicase activity, however, the protein could interact with double stranded oligonucleotides, as judged by mobility shift assay. This result suggests that the Rad4 protein is a DNA binding protein.