

어 자숙액을 감마선 조사(0, 1, 3, 5, 7, 10 kGy)를 적용하여 이에 따른 단백질 함량 및 돌연변이원성을 평가하였다. 그 결과 조사선량이 증가함에 따라 문어 자숙액의 단백질 함량이 167.96  $\mu\text{g}/\text{mL}$ 에서 753.59  $\mu\text{g}/\text{mL}$ 로 증가하였으며, 이를 토대로 한 구성 아미노산의 함량을 측정한 결과 감마선 조사에 의해 Proline 의 함량이 증가한 것으로 확인되었다. Ames test에 의한 돌연변이원성 시험에서는 감마선 조사에 의한 돌연변이원성은 관찰되지 않았다. 따라서 감마선 조사한 문어 자숙액은 돌연변이를 일으키지 않고 단백질의 함량을 증가시켜 식품 및 공중보건산업에 경제적이면서 효과적으로 적용할 수 있을 것이라고 사료된다.

## P5-9

Repeated-Dose Toxicity Study of *Pediococcus pentosaceus* MD1, An Anti-*Helicobacter Pyroli* Activity Lactic Acid Bacteria Isolated from *Kimchi*, in Rats

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The purpose of this study was to investigate repeated-dose toxicity in male and female rats orally administered with *Pediococcus pentosaceus* MD1, an anti-*helicobacter pyroli* producing lactic acid bacteria isolated from *kimchi*. Sprague-Dawley rats were divided into 4 groups, 10 animals in each group. The test article was administered once daily by gavage to rats at dose levels of 0, 500, 1,000 and 2,000 mg/kg for 4 weeks. No test article-related deaths and clinical findings in both sexes of rats during the study period were resulted. In addition, no differences were found between control and treated groups in body weight changes, food intake consumption and water consumptions. Hematological parameters, serum biochemical analysis and any other findings did not also show any significant or dose-dependents alterations. There were no alterations in absolute and relative organ weights by the administration of *Pediococcus pentosaceus* MD1. These results suggest that no-observed-adverse-effect level (NOAEL) of *Pediococcus pentosaceus* MD1 is considered to be more than 2 g/kg in male and female rats.

## P5-10

Antioxidative Effect of *U. davidian* var. *japonica* Nakai Ethanol Extract

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This study was performed to investigate the antioxidant effect of 80% ethanol extracts from *Ulmus*