

**[P-71]****90 days repeated dose toxicity study of bamboo salt in Rats**

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In this GLP study, 6 main study groups of 10(special study group of 10) F344 rats/sex were given vehicle, 250, 500, 1000, 2000 mg/kg JukYom(bamboo salt) and 2000 mg/kg Natural Sea Salt for 90 days.

Standard endpoints in this study included mortality, clinical observations, change of body weights, analysis on food and water consumption, ophthalmoscopic examination, hematologic examination, serum biochemistry, analysis of organ weights, gross anatomic pathology and histopathology. Sperm morphology and vaginal cytology were conducted. In the spleen, B and T cell proliferation test were performed.

There was no treatment-related death. Diarrhea was observed temporarily and recovered in some animals of the treatment groups of JukYom and Natural Sea Salt.

Body weights were significantly decreased in male given groups 2000 mg/kg JukYom and Natural Sea Salt dose. There was decreasing tendency of food consumptions in the treatment groups of JukYom. Water consumptions were significantly increased in male given groups 500, 1000 and 2000 mg/kg JukYom and 2000 mg/kg Natural Sea Salt dose, while in female given groups 1000, 2000 mg/kg JukYom and 2000 mg/kg Natural Sea Salt dose.

There were no treatment-related findings in ophthalmoscopic examination, urinalysis, hematology, serum biochemistry and sperm morphology. There were no treat-related findings in sperm morphology. Vaginal anestrus cycles were prolonged in female given groups 1000 and 2000mg/kg doses. B and T cell proliferation in spleen were not increased between control and treatment groups. In the analysis of organ weights, absolute and relative weights of brain, thymus, lung, liver and right kidney were significantly increased or decreased in male given groups 2000mg/kg Natural Sea Salt dose.

Absolute and relative weights of submaxillary gland, liver, lung and right kidney were significantly increased or decreased in male given groups 1000 and 2000mg/kg JukYom

dose but there were no histopathological abnormalities.

In female given groups 1500 and 2000 mg/kg JukYom dose, uterus weight was decreased but there were no histopathological abnormalities. In the histopathological findings of the uterus, metestus were observed in 3/10of the control, in 3/10 of Natural Sea Salt dose, in 6/10 of 500 mg/kg, in 6/10 of 1000 mg/kg, in 2/10 of 1500 mg/kg and in 6/10 of 2000 mg/kg JukYom dose and diestrus was observed in 1500 and 2000 mg/kg JukYom dose. There were no treatment-related findings in the scheduled necropsy and the histopathological exnaminations.

Therefore, no observed effect level (NOEL) is considered to be 250 mg/kg and maximum tolerance dose (MTD) is considered to be 2,000 mg/kg on the male and female F344 rats.

**Keyword** : 90 days repeated dose toxicity, rat, bamboo salt