

1-14. Characterization of antihypertensive effect of *Isaria sinclairii* and its Genotoxic evaluation in 3 sets of mutagenicity tests

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1) Characterization of antihypertensive effect of *Isaria sinclairii*

The present study examined the effect of alcohol extract of *Isaria sinclairii* on blood pressure in spontaneously hypertensive rats (SHR). The blood pressure and heart rate were measured after treatment of alcohol extract of *I. sinclairii* by indirect tail cuff method and direct *in vivo* model. Male SHR were treated with extracts for 2 or 4 weeks starting at 12 weeks of age. We found that oral treatment of *I. sinclairii* (30mg/kg/day) remarkably decreased from 200 to 112 mmHg (systolic blood pressure)/from 114 to 88 mmHg (diastolic blood pressure) respectively in compare with untreated control SHR.

2) Genotoxic evaluation of *I. sinclairii* in 3 sets of mutagenicity tests

The mutagenic potential of *I. sinclairii* was evaluated using the short-term genotoxicity tests including Ames, chromosome aberration and micronuclei tests.

In *salmonella typhimurium* assay, *I. sinclairii* did not show any mutagenic response in the absence or presence of S9 mix with TA98, TA100, TA1535, and TA1537. In chromosome aberration test, *I. sinclairii* did not show any significant effect on Chinese Hamster Ovary (CHO) cells compared with control.

In mouse micronucleus test, no significant increase in occurrence of micronucleated polychromatic erythrocytes was observed in ICR male mice intraperitoneally administered with *I. sinclairii* at a doses of 15, 150, 1500 mg/kg. These results indicate that *I. sinclairii* has no mutagenic potential in these *in vitro* and *in vivo* systems.