



keyword Liver disease Nonalcoholic fatty liver disease Cirrhosis NAFLD NASH MASH

Short-term nonalcoholic steatohepatitis model prepared by administration of thioacetamide and liver X receptor agonists

We would like to introduce a model of non-alcoholic steatohepatitis (NASH) that develops in a short period of time using thioacetamide. Please feel free to contact us if you have any questions or concerns about the details.

Schedule and Method

Animals used: C57BL/6J mice

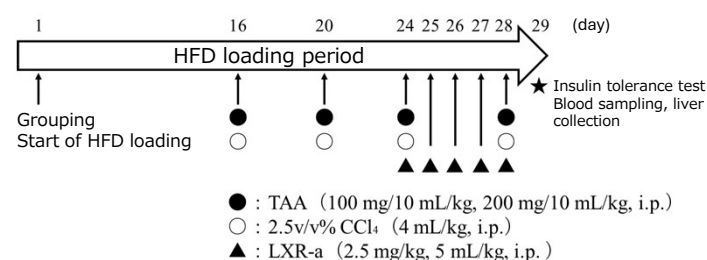
Group composition: Control group (corn oil + DMSO/PBS, ip)
TAA-100 group (TAA at 100mg/kg + LXR-a, ip)
TAA-200 group (TAA at 200mg/kg + LXR-a, ip)
CCl₄ group (CCl₄ + LXR-a, ip)

Induction method: TAA or CCl₄ is administered intraperitoneally (corn oil in the control group) once every 4 days from 16 days after the start of HFD* loading.

LXR-a is administered intraperitoneally (DMSO/PBS in the control group) once a day for 5 days from the third dosing day of TAA or CCl₄.

* High fat feed (HFD): HFD-60, Oriental Yeast Co., Ltd.

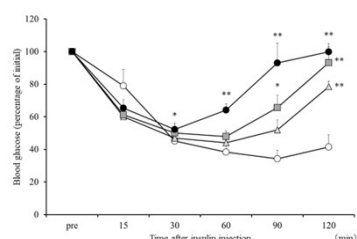
Test Schedule



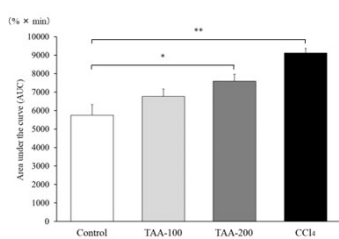
Results

Evaluation items: Blood chemical analysis, insulin tolerance test, liver weight, histopathological examination of the liver.

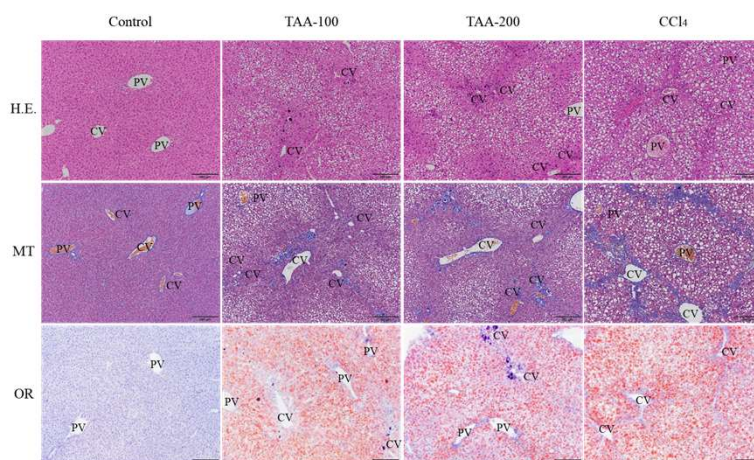
Insulin tolerance test: Performed the day after the final administration of TAA or CCl₄. The area under the curve of blood glucose levels from before insulin administration to 120 minutes after intraperitoneal administration of insulin is calculated using the trapezoidal rule.



Blood glucose change in insulin tolerance test



AUC for blood glucose change in insulin tolerance test



HE, MT, and OR staining of the liver 24 hours after the final administration of TAA or CCl₄

Administration of thioacetamide and LXR-a and feeding of a high-fat diet developed liver fibrosis within a short period of time (28 days).