

## Effect of SAIDO-PS501 on non-alcoholic steatohepatitis model rats

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**Background:** SAIDO-PS501 is a functional food produced by yeast fermentation with *Carica Papaya Linn*, which has radical scavenging activity, and also works effective for the diseases relating to oxidative stress (OS). Recently, non-alcoholic steatohepatitis (NASH) has become a noticeable disease. It has been reported that the excess fat accumulation in hepatocytes with OS is related to the mechanisms of NASH development. We examined the effects and the mechanism of SAIDO-PS501 on NASH.

**Methods:** NASH model rats were prepared by loading OS following the fatty liver formation by feeding with choline-deficient high-fat (CDHF) diet. CDHF diet and treated in addition with: OS, OS + oral SAIDO-PS501 administration as 1% or 3% aqueous solutions (v/w), respectively. After experimental period, blood and liver were collected from rats.

**Results:** The elevated ALT, AST and ALP activities were observed in plasma of NASH rats. The increased serum iron level, the fibrosis, iron deposition, mitochondrial dysfunction and the CYP2E1 induction in livers also were demonstrated. The SAIDO-PS501 administration moderated these changes induced by iron deposit, the mitochondrial dysfunction and the CYP2E1.