

Figure S1. Effects of different concentration gradients of donafenib and atorvastatin on fatty acid accumulation were analyzed by Oil Red O staining. (A) Effect of different concentrations of donafenib on fatty acid accumulation. (B) Effect of different concentrations of atorvastatin on fatty acid accumulation. (C) Effect of different concentrations of donafenib and atorvastatin combination on fatty acid accumulation. (D) Quantitative analysis of Oil Red O staining upon treatment of cells with donafenib. (E) Quantitative analysis of Oil Red O staining upon treatment of cells with atorvastatin. (F) Quantitative analysis of Oil Red O staining upon treatment of cells with donafenib and atorvastatin. (G) Effect of different concentrations of donafenib and atorvastatin on cell viability. Data were presented as the means $\pm$ SD and analyzed by one-way ANOVA. LSD was used for post hoc multiple comparisons in (D-F). Dunnett was used for post hoc multiple comparisons in (G). * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$, compared with the control (0 μ M). ATO, atorvastatin; DON, donafenib.

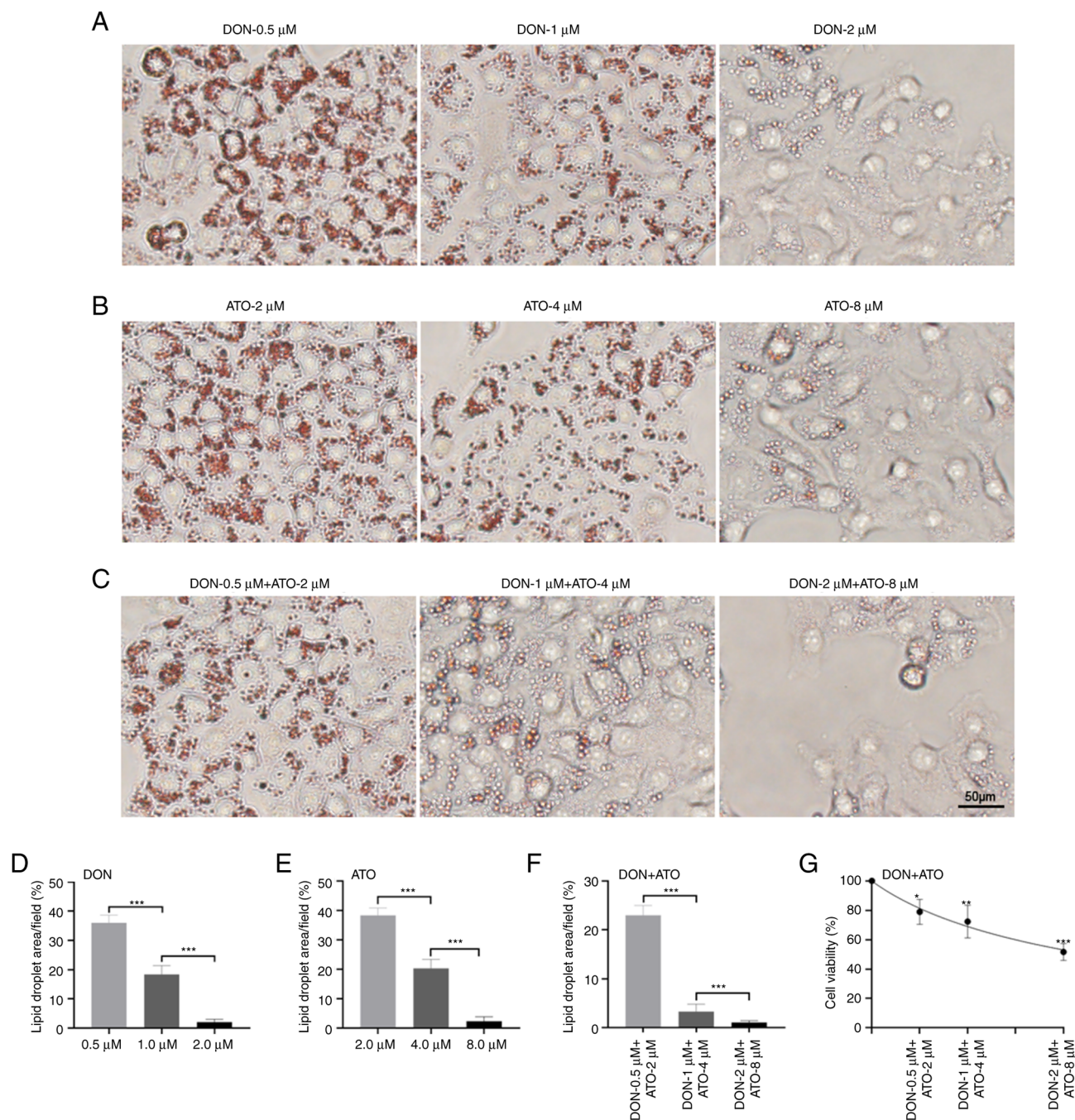


Figure S2. Use of immunohistochemistry to analyze the expression of FAS in liver tissue. The three treatment groups included the HFD-ATO group, the HFD-DON group and the HFD-DON + ATO group. (A) Representative immunohistochemical staining images. (B) Quantitative analysis of FAS expression. Data were presented as the means $\pm$ SD and a Kruskal-Wallis test was used for statistical analysis. ** $P < 0.01$, *** $P < 0.001$ vs. HFD group; # $P < 0.05$ vs. HFD-ATO group; † $P < 0.05$ vs. HFD-DON group. FAS, fatty acid synthase; ATO, atorvastatin; DON, donafenib; HFD, high-fat diet.

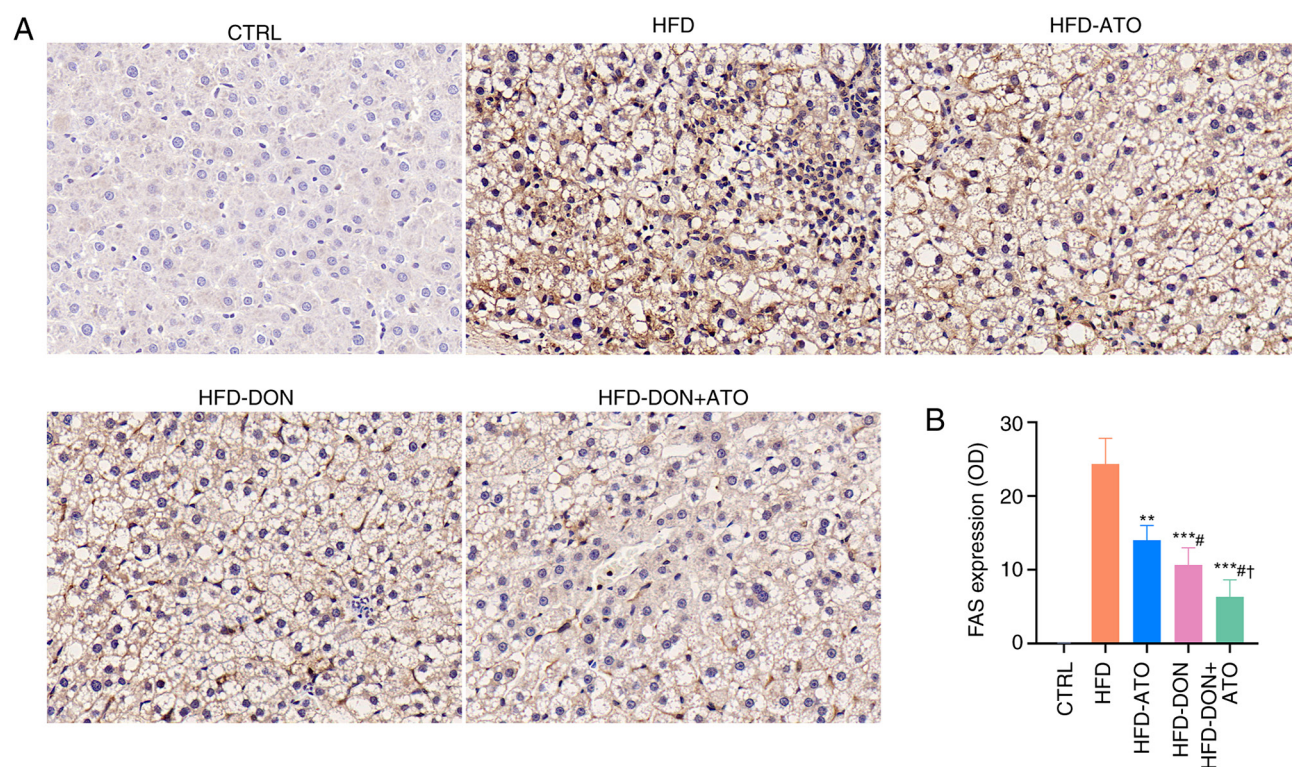


Figure S3. Dose safety of donafenib and atorvastatin in rats with MASLD. The three treatment groups included the HFD-ATO group, the HFD-DON group and the HFD-DON + ATO group. (A) Heart, spleen, lung and kidney tissue of rats in each group were analyzed by H&E staining. (B-E) Serum ALT, AST, BUN and CRE levels were measured. Data were presented as the means $\pm$ SD and analyzed by one-way ANOVA (Tukey was used for post hoc multiple comparisons). ns, no significance; MASLD, metabolic dysfunction-associated steatotic liver disease; ALT, alanine aminotransferase; AST, aspartate aminotransferase; BUN, blood urea nitrogen; CRE, creatinine.

