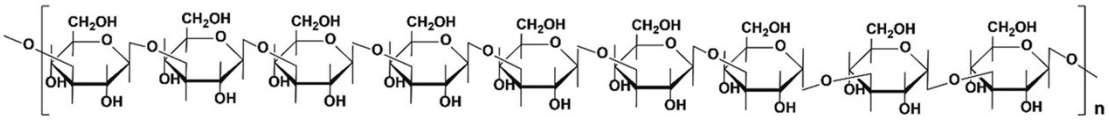

Fig. S1 The molecular architecture of Salecan.

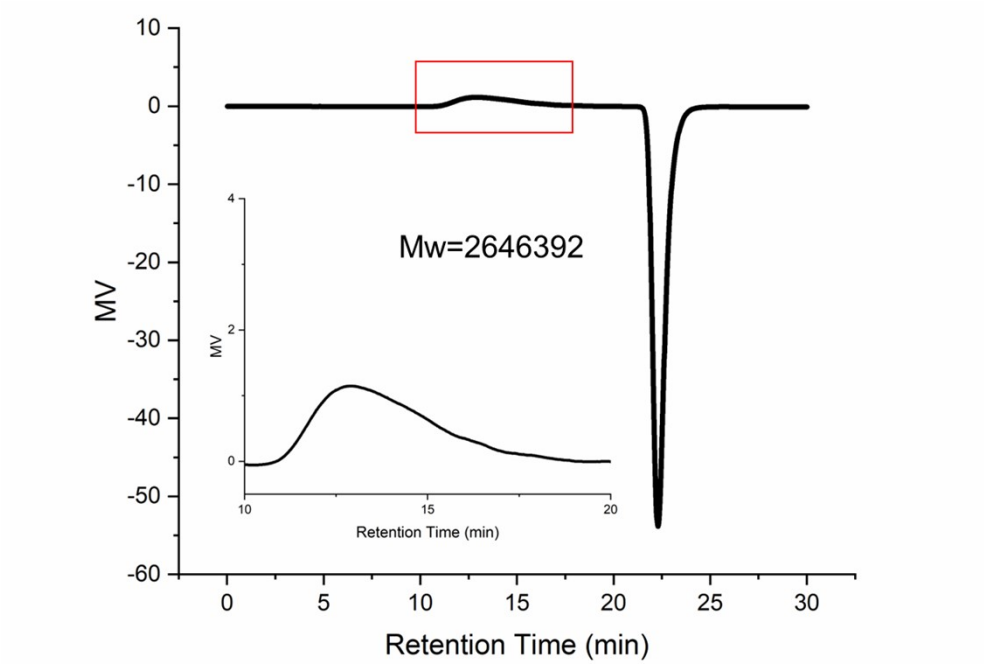

Fig. S2 The molecular weight of Salecan was analyzed by using high-performance gel filtration chromatography.

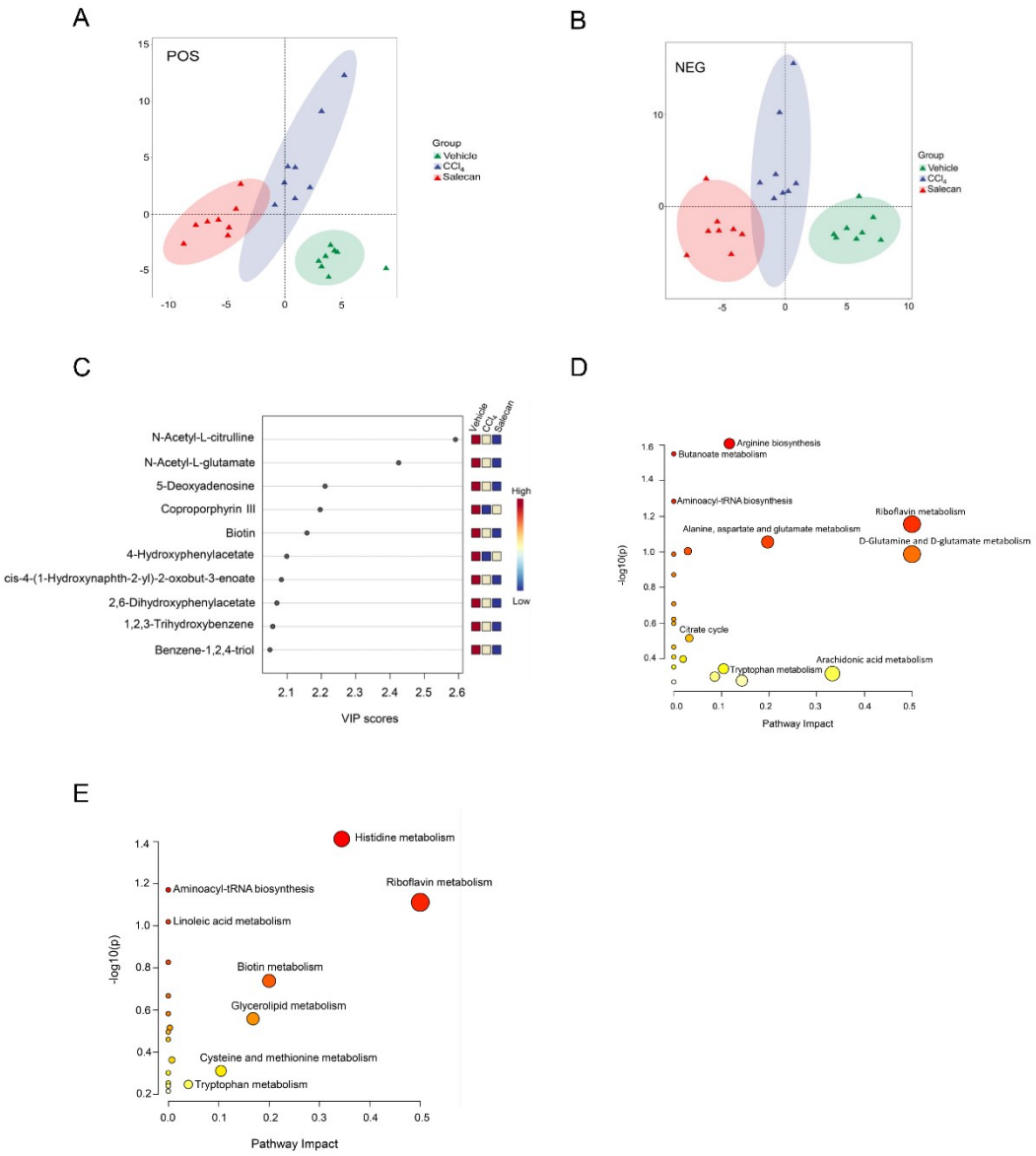

Fig. S3 Effect of Salecan on intestinal metabolic profiles in liver injury mice. (A-B) OPLS-DA score plot for the Vehicle, CCl_4, and Salecan groups in the positive (A) and negative (B) model (n=8). (C) VIP values (n=8). (D-E) the metabolic pathway impact prediction based on the KEGG online database (D) between the Vehicle and CCl_4 groups, (E) between the CCl_4 and Salecan groups (n=8).

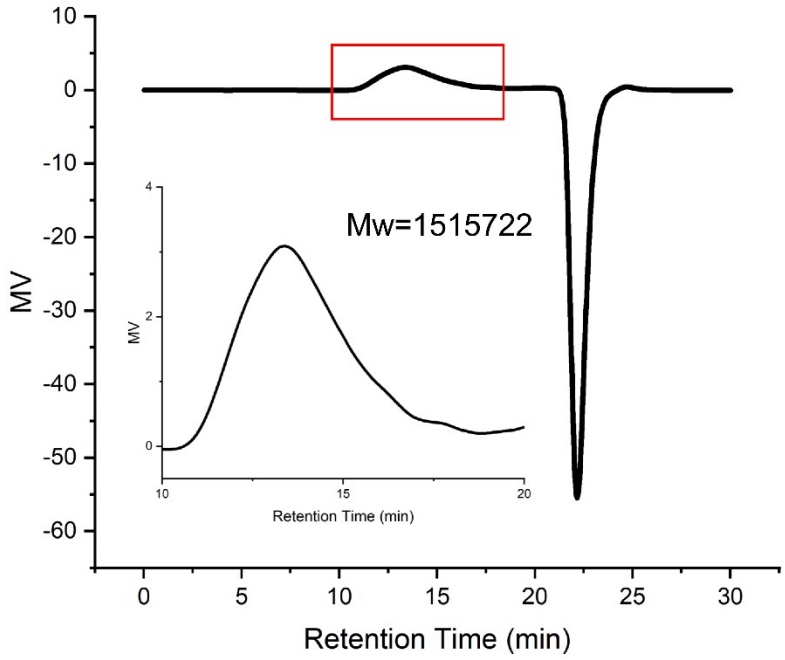

Fig. S4 The molecular weight of Salecan metabolites was analyzed by using high-performance gel filtration chromatography.

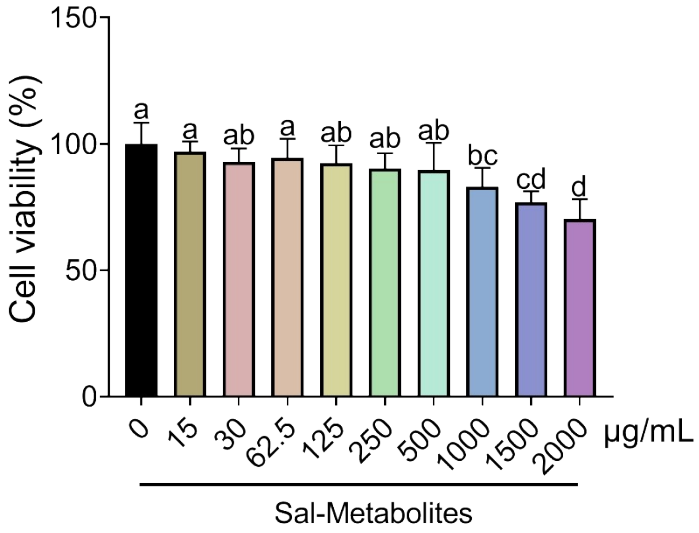

Fig. S5 Effect of Sal-Metabolites on the cell viability in THLE-2 cells.

Table S1. **Primers used for the qPCR analysis of genes from mice**

Genes	Forward primer (5′-3′)	Reverse primer (5′-3′)
Nqo1	GGTAGCGGCTCCATGTACTC	CGCAGGATGCCACTCTGAAT
Trx1	AAGCTTGTCGTGGTGGACTT	AACTCCCCCACCTTTTGACC
Hmox1	GCCGAGAATGCTGAGTTCATG	TGGTACAAGGAAGCCATCACC
Gclc	GGGAACGGACGGGACG	CAACATGTACTCCACCTCGT
36B4	GCCCTGCACTCTCGCTTTCT	CAACTGGGCACCGAGGCAACAGTTG
Gsr	CCACGGCTATGCAACATTCG	AATCAGGATGTGTGGAGCGG
Prdx5	TCGTCGGCTGAAAAGGTTCT	ATCTGGCTCCACGTTCAGTG
Gsta	CCAGGACTCTCACTAGACCGT	CAATCTCCACCATGGGCACT

Table S2. Primers used for the qPCR analysis of genes from human

Genes	Forward primer (5′-3′)	Reverse primer (5′-3′)
Trx1	GTGAAGCAGATCGAGAGCAAG	CGTGGCTGAGAAGTCAACTACTA
36B4	CAGCAAGTGGGAAGGTGTAATCC	CCCATTCTATCATCAACGGGTACAA
Gclc	CACTTGCGTGAATGTTGGATG	TGGGATCACTCGTGAAGGCT
Prdx5	GCAAGACGGTGCAGTGAAG	ATGGCATCTCCCACCTTGATT