

Table S1. Multiple comparison correction of LSM based on Table 4

SNP	β	SE	P-value
<i>rs2073082</i>	-0.192	0.212	0.365
<i>rs738491</i>	0.304	0.139	0.029
<i>rs3761472</i>	0.355	0.131	0.007

Multiple linear regression model was adjusted for age, gender, and body mass index.

Table S2. Association of *SAMM50 rs3761472* G allele carriers and non-carriers with TC,LDL after logistic regression model adjusted for sex, age, BMI and lipid-lowering agent

Model 1	OR (95% CI)	P-value	Model 2	OR (95% CI)	P-value
Sex	1.190(0.894,1.584)	0.232	Sex	1.164(0.877,1.543)	0.292
Age	0.980(0.957,1.005)	0.115	Age	0.981(0.957,1.005)	0.120
BMI	0.968(0.931,1.008)	0.113	BMI	0.970(0.932,1.009)	0.131
lipid-lowering agent	0.869(0.664,1.138)	0.308	lipid-lowering agent	0.876(0.669,1.146)	0.333
TC	0.873(0.782,0.976)	0.017	LDL	0.871(0.772,0.982)	0.024

BMI, body mass index; TC, total cholesterol.

Table S3. Comparison of clinical characteristics according to *SAMM50* genotypes within the whole population

	<i>rs2073082</i>				<i>rs738491</i>				<i>rs3761472</i>			
	GG	AG	AA	P-value	CC	CT	TT	P-value	AA	AG	GG	P-value
N	441	497	115		325	521	207		415	515	123	
	69.00	69.00	70.00		70.00	69.00	69.00		69.00	69.00	69.00	
Age(year)	[67.00~74.0	[67.00~73	[67.00~7	0.096	[67.00~75.	[67.00~73.	[67.00~74	0.004	[67.00~74.	[67.00~74.0	[67.00~73.	0.151
	0]	.00]	5.00]		00]	00]	.00]		00]	0]	00]	
Male, n (%)	129	139	35	0.835	98	151	54	0.594	123	146	34	0.872
	(29.25)	(27.97)	(30.43)		(30.15)	(28.98)	(26.09)		(29.64)	(28.35)	(27.64)	
Weight(Kg)	65.93 ±	65.48 ±	65.82 ±	0.796	65.93 ±	65.66 ±	65.46 ±	0.869	66.34 ±	65.17 ±	65.78 ±	0.222
	10.20	10.28	10.14		10.51	10.43	9.27		10.42	10.20	9.60	
BMI(Kg/m ²)	25.80 ±	25.85 ±	25.70 ±	0.896	25.84 ±	25.85 ±	25.67 ±	0.769	25.98 ±	25.70 ±	25.73 ±	0.381
	3.14	3.26	2.98		3.27	3.22	2.94		3.26	3.17	2.87	
Systolic pressure	136.36 ±	134.06 ±	134.18	0.090	135.80 ±	133.63 ±	137.34 ±	0.015	135.45 ±	134.13 ±	137.38 ±	0.120
	19.70	13.61	± 13.97		20.08	13.78	16.22		19.27	13.89	16.01	
Diastolic pressure	79.00 ±	78.87 ±	78.33 ±	0.768	78.87 ±	78.69 ±	79.30 ±	0.697	79.00 ±	78.60 ±	79.51 ±	0.546
	9.56	8.13	7.79		9.24	8.44	8.60		9.28	8.36	8.23	
Waist circumference	88.75 ±	88.78 ±	88.61 ±	0.979	89.09 ±	88.73 ±	88.25 ±	0.520	89.07 ±	88.56 ±	88.45 ±	0.600
	7.99	8.52	8.10		8.59	8.38	7.34		8.51	8.34	6.91	
Hip circumference	98.45 ±	98.40 ±	98.68 ±	0.938	98.58 ±	98.53 ±	98.04 ±	0.673	98.77 ±	98.22 ±	98.33 ±	0.518
	7.36	7.51	7.17		7.50	7.51	6.98		7.52	7.39	7.03	
WHR	0.90 ± 0.04	0.90 ±	0.90 ±	0.747	0.90 ±	0.90 ±	0.90 ±	0.560	0.90 ±	0.90 ±	0.90 ±	0.945

		0.05	0.05		0.06	0.05	0.04		0.05	0.05	0.04	
CAP	272.55 ± 49.16	275.01 ± 49.70	264.04 ± 47.78	0.156 (0.083)	268.10 ± 48.03	277.40 ± 50.36	268.84 ± 47.91	0.024	271.60 ± 47.75	275.01 ± 50.13	268.23 ± 51.14	0.373
LSM	5.22 ± 2.19	4.94 ± 1.72	4.85 ± 2.00	0.083	4.84 ± 1.68	5.09 ± 1.91	5.25 ± 2.39	0.080	4.85 ± 1.78	5.11 ± 1.84	5.42 ± 2.78	0.021
NFS	-0.68 [-1.40-0.12]	-0.79 [-1.48--0.15]	-0.92 [-1.49--0.08]	0.135	-0.76 [-1.46-0.09]	-0.74 [-1.44-0.10]	-0.74 [-1.48-0.04]	0.918	-0.73 [-1.44-0.07]	-0.79 [-1.46--0.07]	-0.72 [-1.55-0.03]	0.617
LSM≥8.2 Kpa, n (%)	29 (6.58)	24 (4.83)	4 (3.48)	0.273	12 (3.69)	29 (5.57)	16 (7.73)	0.133	18 (4.34)	26 (5.05)	13 (10.57)	0.024
NFS≥-1.455, n (%)	292 (66.21)	305 (61.37)	69 (60.00)	0.361	214 (65.85)	319 (61.23)	133 (64.25)	0.950	265 (63.86)	326 (63.30)	75 (60.98)	0.933
TBIL(umol/L)	15.97 ± 7.97	15.13 ± 5.77	14.98 ± 4.41	0.112	15.28 ± 5.66	15.33 ± 6.16	16.13 ± 8.99	0.281	15.32 ± 5.80	15.65 ± 7.35	15.21 ± 6.49	0.681
TG (mmol/L)	1.55 ± 1.08	1.63 ± 1.04	1.51 ± 0.92	0.395	1.56 ± 1.03	1.66 ± 1.12	1.44 ± 0.84	0.028	1.60 ± 1.08	1.60 ± 1.04	1.46 ± 0.94	0.394
TC (mmol/L)	4.74 ± 1.18	4.87 ± 1.29	4.89 ± 1.09	0.209	4.86 ± 1.15	4.84 ± 1.29	4.69 ± 1.19	0.260	4.92 ± 1.18	4.74 ± 1.27	4.80 ± 1.19	0.089
HDL (mmol/L)	1.16 ± 0.26	1.15 ± 0.24	1.18 ± 0.27	0.391	1.18 ± 0.26	1.14 ± 0.25	1.16 ± 0.23	0.121	1.16 ± 0.25	1.15 ± 0.25	1.18 ± 0.25	0.402
LDL (mmol/L)	3.27 ± 1.07	3.39 ± 1.18	3.41 ± 1.00	0.189	3.37 ± 1.05	3.37 ± 1.18	3.24 ± 1.06	0.360	3.44 ± 1.08	3.27 ± 1.16	3.33 ± 1.06	0.085
ALT(U/L)	19.83 ± 9.37	19.82 ± 9.27	19.03 ± 9.50	0.690	19.21 ± 8.73	20.11 ± 9.45	19.65 ± 9.94	0.385	19.52 ± 9.41	20.01 ± 9.41	19.38 ± 8.74	0.662
AST(U/L)	18.53 ± 7.76	18.52 ± 7.42	18.31 ± 6.67	0.961	18.21 ± 6.14	18.77 ± 7.74	18.28 ± 8.64	0.511	18.61 ± 7.26	18.37 ± 7.13	18.68 ± 9.43	0.856
Hypertension, n (%)	349 (79.14)	373 (75.05)	88 (76.52)	0.291	249 (76.62)	398 (76.39)	163 (78.74)	0.891	322 (77.59)	388 (75.34)	100 (81.30)	0.471
T2DM, n(%)	195 (44.22)	203 (40.85)	43 (37.39)	0.332	130 (40.00)	225 (43.19)	86 (41.55)	0.661	174 (41.93)	217 (42.14)	50 (40.65)	0.946
Stroke, n(%)	70 (15.87)	76 (15.29)	19 (16.52)	0.939	48 (14.77)	88 (16.89)	29 (14.01)	0.514	65 (15.66)	82 (15.92)	18 (14.63)	0.918
METS, n(%)	376 (85.26)	422 (84.91)	95 (82.61)	0.777	272 (83.69)	446 (85.60)	175 (84.54)	0.748	354 (85.30)	434 (84.27)	105 (85.37)	0.895
Lipid lowering agent, n (%)	160 (36.28)	158 (31.79)	37 (32.17)	0.308	113 (34.77)	167 (32.05)	75 (36.23)	0.540	145 (34.94)	171 (33.20)	39 (31.71)	0.828

BMI, body mass index; WHR, Waist-to-hip ratio; CAP, controlled attenuated parameter controlled; LSM, liver stiffness measurement; NFS, NAFLD Fibrosis Score; TBIL, total bilirubin; TG, total triglyceride; TC, total cholesterol; HDL, high-density lipoprotein; LDL, low-density lipoprotein; ALT, alanine aminotransferase; AST, aspartate aminotransferase; T2DM, type 2 diabetes; Mets, metabolic syndrome.

Table S4. Multiple comparison correction of LSM based on Table S3

SNP	β	SE	P-value
<i>rs2073082</i>	-0.226	0.099	0.022
<i>rs738491</i>	0.219	0.091	0.016
<i>rs3761472</i>	0.298	0.097	0.002

Multiple linear regression model was adjusted for age, gender, and body mass index.

Table S5. Comparison of clinical characteristics according to SAMM50 genotypes within NAFLD cohorts

	<i>rs2073082</i>				<i>rs738491</i>				<i>rs3761472</i>			
	GG	AG	AA	P-value	CC	CT	TT	P-value	AA	AG	GG	P-value
N	242	299	49		161	312	117		230	290	70	
	69.00	68.00	70.00		70.00	68.00	69.00		69.00	68.00	69.00	
Age(year)	[66.00~73.00]	[67.00~72.00]	[66.50~74.50]	0.497	[67.00~74.00]	[67.00~72.00]	[66.00~72.00]	0.037	[67.00~74.00]	[66.00~73.00]	[66.00~71.00]	0.077
Male, n (%)	63 (26.03)	69 (23.08)	17 (34.69)	0.208	44 (27.33)	80 (25.64)	25 (21.37)	0.515	60 (26.09)	72 (24.83)	17 (24.29)	0.929
Weight(Kg)	67.76 ± 10.67	68.43 ± 10.01	70.27 ± 10.38	0.288	69.11 ± 10.18	68.23 ± 10.62	67.41 ± 9.69	0.389	69.22 ± 10.23	67.71 ± 10.44	67.78 ± 10.06	0.228
BMI(Kg/m ²)	26.68 ± 3.03	27.01 ± 3.16	27.22 ± 2.53	0.329	27.05 ± 2.98	26.93 ± 3.18	26.55 ± 2.84	0.372	27.12 ± 3.04	26.79 ± 3.11	26.53 ± 2.86	0.272
Systolic pressure	137.54 ± 22.36	135.39 ± 13.73	134.75 ± 13.22	0.320	137.58 ± 24.70	134.61 ± 13.31	138.57 ± 16.16	0.064	137.20 ± 22.37	134.90 ± 13.23	138.32 ± 16.15	0.200
Diastolic pressure	79.62 ± 10.49	79.39 ± 8.33	79.10 ± 7.71	0.923	78.62 ± 10.59	79.61 ± 8.60	80.22 ± 8.71	0.335	79.28 ± 10.40	79.42 ± 8.40	80.20 ± 8.19	0.763
Waist circumference	90.77 ± 7.62	91.25 ± 8.13	91.98 ± 7.94	0.575	91.99 ± 8.19	90.97 ± 8.03	90.31 ± 7.10	0.198	91.79 ± 8.08	90.73 ± 8.04	90.46 ± 6.62	0.242
Hip circumference	99.83 ± 7.29	100.73 ± 7.14	100.35 ± 6.58	0.356	100.65 ± 7.00	100.42 ± 7.34	99.67 ± 6.89	0.513	100.84 ± 7.18	100.10 ± 7.16	99.58 ± 7.05	0.329
WHR	0.91 ± 0.04	0.91 ± 0.05	0.92 ± 0.05	0.329	0.91 ± 0.05	0.91 ± 0.05	0.91 ± 0.04	0.231	0.91 ± 0.05	0.91 ± 0.05	0.91 ± 0.04	0.692
CAP	293.87 ± 41.67	296.52 ± 40.14	293.49 ± 45.30	0.758	291.94 ± 43.67	299.00 ± 39.28	289.67 ± 41.68	0.080	294.42 ± 40.99	296.59 ± 40.02	292.11 ± 46.15	0.705
LSM	5.57 ± 2.16	5.31 ± 1.76	5.64 ± 2.48	0.306	5.31 ± 1.87	5.41 ± 1.80	5.70 ± 2.54	0.318	5.33 ± 1.94	5.43 ± 1.76	5.88 ± 2.86	0.162
NFS	-0.69 [-1.42-0.01]	-0.74 [-1.37--0.20]	-0.97 [-1.48-0.00]	0.756	-0.75 [-1.39-0.20]	-0.69 [-1.38--0.01]	-0.75 [-1.55--0.06]	0.727	-0.71 [-1.38-0.03]	-0.78 [-1.42--0.20]	-0.72 [-1.55-0.10]	0.311
LSM≥8.2 Kpa, n (%)	20 (8.26)	20 (6.69)	3 (6.12)	0.694	10 (6.21)	21 (6.73)	12 (10.26)	0.415	16 (6.96)	18 (6.21)	9 (12.86)	0.154
NFS≥-1.455	148 (61.16)	180 (60.20)	26 (53.06)	0.457	105 (65.22)	183 (58.65)	66 (56.41)	0.372	142 (61.74)	173 (59.66)	39 (55.71)	0.766

TBIL(umol/L)	16.38 ± 9.41	15.08 ± 5.83	15.51 ± 4.93	0.133	15.43 ± 6.41	15.30 ± 6.06	16.88 ± 11.24	0.136	15.42 ± 6.63	15.90 ± 8.23	15.36 ± 6.81	0.728
TG (mmol/L)	1.78 ± 1.25	1.78 ± 1.09	1.78 ± 1.19	0.996	1.78 ± 1.18	1.85 ± 1.22	1.60 ± 0.97	0.150	1.81 ± 1.22	1.79 ± 1.13	1.67 ± 1.14	0.687
TC (mmol/L)	4.65 ± 1.14	4.95 ± 1.37	4.85 ± 1.22	0.024	4.85 ± 1.20	4.86 ± 1.35	4.65 ± 1.16	0.306	4.90 ± 1.22	4.77 ± 1.32	4.73 ± 1.24	0.424
HDL (mmol/L)	1.11 ± 0.23	1.13 ± 0.21	1.10 ± 0.25	0.456	1.13 ± 0.24	1.10 ± 0.22	1.13 ± 0.21	0.228	1.11 ± 0.22	1.12 ± 0.23	1.13 ± 0.22	0.803
LDL (mmol/L)	3.18 ± 1.00	3.46 ± 1.27	3.40 ± 1.09	0.019	3.36 ± 1.07	3.39 ± 1.24	3.20 ± 1.03	0.329	3.43 ± 1.09	3.29 ± 1.22	3.26 ± 1.09	0.363
ALT(U/L)	21.45 ± 10.51	21.24 ± 9.45	23.04 ± 12.21	0.514	21.11 ± 9.67	21.58 ± 9.92	21.71 ± 11.36	0.859	21.22 ± 10.38	21.46 ± 10.09	22.36 ± 9.67	0.716
AST(U/L)	19.33 ± 8.90	19.19 ± 8.30	20.55 ± 8.68	0.587	19.12 ± 7.19	19.37 ± 8.48	19.68 ± 10.43	0.867	19.46 ± 8.40	18.96 ± 7.85	20.70 ± 11.52	0.305
Hypertension, n (%)	193 (79.75)	230 (76.92)	42 (85.71)	0.278	128 (79.50)	246 (78.85)	91 (77.78)	0.849	187 (81.30)	219 (75.52)	59 (84.29)	0.240
T2DM, n(%)	116 (47.93)	135 (45.15)	21 (42.85)	0.725	73 (45.34)	146 (46.79)	53 (45.30)	0.938	109 (47.39)	129 (44.48)	34 (48.57)	0.729
Stroke, n(%)	39 (16.12)	47 (15.72)	6 (12.24)	0.790	23 (14.29)	53 (16.99)	16 (13.68)	0.578	36 (15.65)	45 (15.52)	11 (15.71)	0.999
METS, n(%)	218 (90.08)	275 (91.97)	44 (89.80)	0.711	143 (88.82)	292 (93.59)	102 (87.18)	0.061	212 (92.17)	263 (90.69)	62 (88.57)	0.629
Lipid lowering agent, n (%)	78 (32.23)	96 (32.11)	17 (34.69)	0.931	54 (33.54)	100 (32.05)	37 (31.62)	0.936	80 (34.78)	89 (30.69)	22 (31.43)	0.722

BMI, body mass index; WHR, Waist-to-hip ratio; CAP, controlled attenuated parameter controlled; LSM, liver stiffness measurement; NFS, NAFLD Fibrosis Score; TBIL, total bilirubin; TG, total triglyceride; TC, total cholesterol; HDL, high-density lipoprotein; LDL, low-density lipoprotein; ALT, alanine aminotransferase; AST, aspartate aminotransferase; T2DM, type 2 diabetes; Mets, metabolic syndrome.

Table S6. Comparison of clinical characteristics according to SAMM50 genotypes within NAFLD cohorts (Carriers Vs Noncarriers)

	<i>rs2073082</i>			<i>rs738491</i>			<i>rs3761472</i>		
	<i>Carriers(GG+AG)</i>	<i>Noncarriers(AA)</i>	<i>P-value</i>	<i>Carriers(TT+CT)</i>	<i>Noncarriers(CC)</i>	<i>P-value</i>	<i>Carriers(GG+AG)</i>	<i>Noncarriers(AA)</i>	<i>P-value</i>
N	541	49		429	161		360	230	
Age(year)	69.00	69.00	0.316	68.00	70.00	0.010	68.00 [66.00~72.00]	69.00 [67.00~74.00]	0.026
	[66.00~73.00]	[67.00~73.00]		[66.00~72.00]	[67.00~74.00]				
Male, n (%)	132 (24.40)	17 (34.69)	0.112	105 (24.48)	44 (27.33)	0.477	89 (24.72)	60 (26.09)	0.710
Weight(Kg)	68.13 ± 10.31	70.27 ± 10.38	0.165	68.00 ± 10.37	69.11 ± 10.18	0.245	67.72 ± 10.35	69.22 ± 10.23	0.086
BMI(Kg/m2)	26.86 ± 3.10	27.22 ± 2.53	0.434	26.83 ± 3.09	27.05 ± 2.98	0.425	26.74 ± 3.06	27.12 ± 3.04	0.137
Systolic pressure	136.35 ± 18.09	134.75 ± 13.22	0.550	135.70 ± 14.25	137.58 ± 24.70	0.256	135.57 ± 13.89	137.20 ± 22.37	0.282
Diastolic pressure	79.49 ± 9.34	79.10 ± 7.71	0.782	79.78 ± 8.63	78.62 ± 10.59	0.177	79.57 ± 8.36	79.28 ± 10.40	0.707
Waist	91.04 ± 7.91	91.98 ± 7.94	0.431	90.79 ± 7.78	91.99 ± 8.19	0.103	90.68 ± 7.77	91.79 ± 8.08	0.096

circumference									
Hip circumference	100.33 ± 7.21	100.35 ± 6.58	0.981	100.21 ± 7.22	100.65 ± 7.00	0.513	100.00 ± 7.13	100.84 ± 7.18	0.164
WHR	0.91 ± 0.05	0.92 ± 0.05	0.212	0.91 ± 0.05	0.91 ± 0.05	0.087	0.91 ± 0.05	0.91 ± 0.05	0.456
LSM	5.43 ± 1.95	5.64 ± 2.48	0.526	5.49 ± 2.03	5.31 ± 1.87	0.367	5.52 ± 2.02	5.33 ± 1.94	0.306
CAP	295.37 ± 40.79	293.49 ± 45.30	0.784	296.43 ± 40.12	291.94 ± 43.67	0.275	295.72 ± 41.24	294.42 ± 40.99	0.729
NFS	-0.73 [-1.40--0.06]	-0.97 [-1.48-0.00]	0.814	-0.72 [-1.41--0.13]	-0.75 [-1.39-0.23]	0.476	-0.75 [-1.43--0.12]	-0.71 [-1.38-0.03]	0.209
LSM≥8.2 Kpa, n (%)	40 (7.39)	3 (6.12)	0.863	33 (7.70)	10 (6.21)	0.577	27 (7.50)	16 (6.96)	0.863
NFS≥-1.455	328 (60.63)	26 (53.06)	0.355	249 (58.04)	105 (65.22)	0.538	212 (58.89)	142 (61.74)	0.523
TBIL(umol/L)	15.66 ± 7.66	15.51 ± 4.93	0.888	15.73 ± 7.84	15.43 ± 6.41	0.668	15.79 ± 7.97	15.42 ± 6.63	0.556
TG (mmol/L)	1.78 ± 1.16	1.78 ± 1.19	0.983	1.78 ± 1.16	1.78 ± 1.18	0.977	1.76 ± 1.13	1.81 ± 1.22	0.670
TC (mmol/L)	4.81 ± 1.28	4.85 ± 1.22	0.828	4.80 ± 1.30	4.85 ± 1.20	0.692	4.76 ± 1.30	4.90 ± 1.22	0.197
HDL (mmol/L)	1.12 ± 0.22	1.10 ± 0.25	0.502	1.11 ± 0.22	1.13 ± 0.24	0.260	1.12 ± 0.22	1.11 ± 0.22	0.757
LDL (mmol/L)	3.34 ± 1.16	3.40 ± 1.09	0.710	3.33 ± 1.19	3.36 ± 1.07	0.811	3.29 ± 1.19	3.43 ± 1.09	0.158
ALT(U/L)	21.33 ± 9.94	23.04 ± 12.21	0.259	21.61 ± 10.32	21.11 ± 9.67	0.591	21.63 ± 10.00	21.22 ± 10.38	0.634
AST(U/L)	19.25 ± 8.56	20.55 ± 8.68	0.311	19.45 ± 9.04	19.12 ± 7.19	0.674	19.30 ± 8.69	19.46 ± 8.40	0.817
Hypertension, n (%)	423 (78.19)	42 (85.71)	0.191	337 (78.55)	128 (79.50)	0.795	278 (797.22)	187 (81.30)	0.405
T2DM, n(%)	251 (46.40)	21 (42.86)	0.634	199 (46.39)	73 (45.34)	0.821	163 (45.27)	109 (47.39)	0.615
Stroke, n(%)	86 (15.90)	6 (12.24)	0.502	69 (16.08)	23 (14.29)	0.591	56 (15.56)	36 (15.65)	0.958
METS, n(%)	493 (91.13)	44 (89.80)	0.755	394 (91.84)	143 (88.82)	0.253	325 (90.28)	212 (92.17)	0.432
Lipid lowering agent, n (%)	174 (32.16)	17 (34.69)	0.709	137 (31.93)	54 (33.54)	0.759	111 (30.83)	80 (34.78)	0.420

BMI, body mass index; WHR, Waist-to-hip ratio; CAP, controlled attenuated parameter controlled; LSM, liver stiffness measurement; NFS, NAFLD Fibrosis Score; TBIL,total bilirubin; TG, total triglyceride; TC, total cholesterol; HDL, high-density lipoprotein; LDL, low-density lipoprotein; ALT, alanine aminotransferase; AST, aspartate aminotransferase; T2DM, type 2 diabetes; Mets, metabolic syndrome.