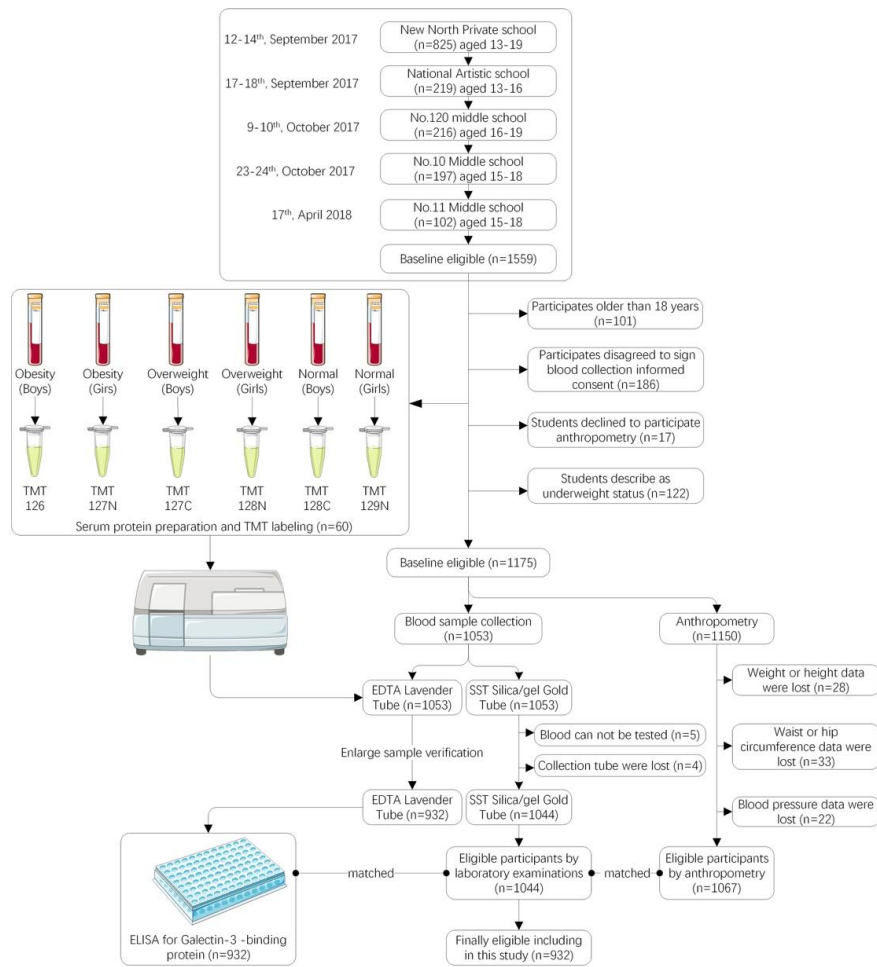


Figure S1. CONSIRT Flow Diagram



TableS1. TMT overview

	Normal Weight 1 (n=10)	Normal Weight 2 (n=10)	Overweight 1 (n=10)	Overweight 2 (n=10)	Obesity 1 (n=10)	Obesity 2 (n=10)
TMT label	128C	129N	127C	128N	126	127N
Gender, M/F	10/0	0/10	10/0	0/10	10/0	0/10
Age, (years)	15.8 (1.14)	15.9 (1.14)	15.7 (0.48)	15.6 (0.7)	15.9 (0.99)	15.4 (0.97)
BMI	21.15 (0.95)	20.47 (1.03)	25.11 (0.96)	26.01 (0.91)	33.50 (2.81)	33.81 (3.00)
WC (cm)	72.6 (5.38)	67.5 (3.38)	80.7 (5.66)	76.8 (2.86)	98.9 (7.78)	92.7 (9.14)
SBP (mmHg)	119.8 (10.85)	112.9 (8.94)	124.5 (9.12)	118.4 (13.91)	140.6 (19.07)	135.5 (12.36)
DBP (mmHg)	63.5 (7.32)	69 (13.24)	67 (10.04)	69.2 (10.89)	76.9 (13.03)	71.8 (7.8)
Pulse rate	75.8 (11.46)	84.1 (14.31)	78.7 (18.05)	89.9 (10.5)	82 (10.24)	88.8 (9.89)
FPG (mmol/L)	4.18 (0.28)	4.14 (0.39)	4.07 (0.44)	4.11 (1.49)	3.66 (1.35)	4.3 (0.38)
TG, mmol/L	0.61 (0.19)	1.00 (0.51)	0.71 (0.18)	0.95 (0.49)	1.32 (0.79)	1.27 (0.43)
TC, mmol/L	3.86 (0.87)	4.05 (0.74)	3.39 (0.32)	3.61 (1.45)	3.62 (1.37)	4.36 (0.5)

Figure S2. Validation of MS data.

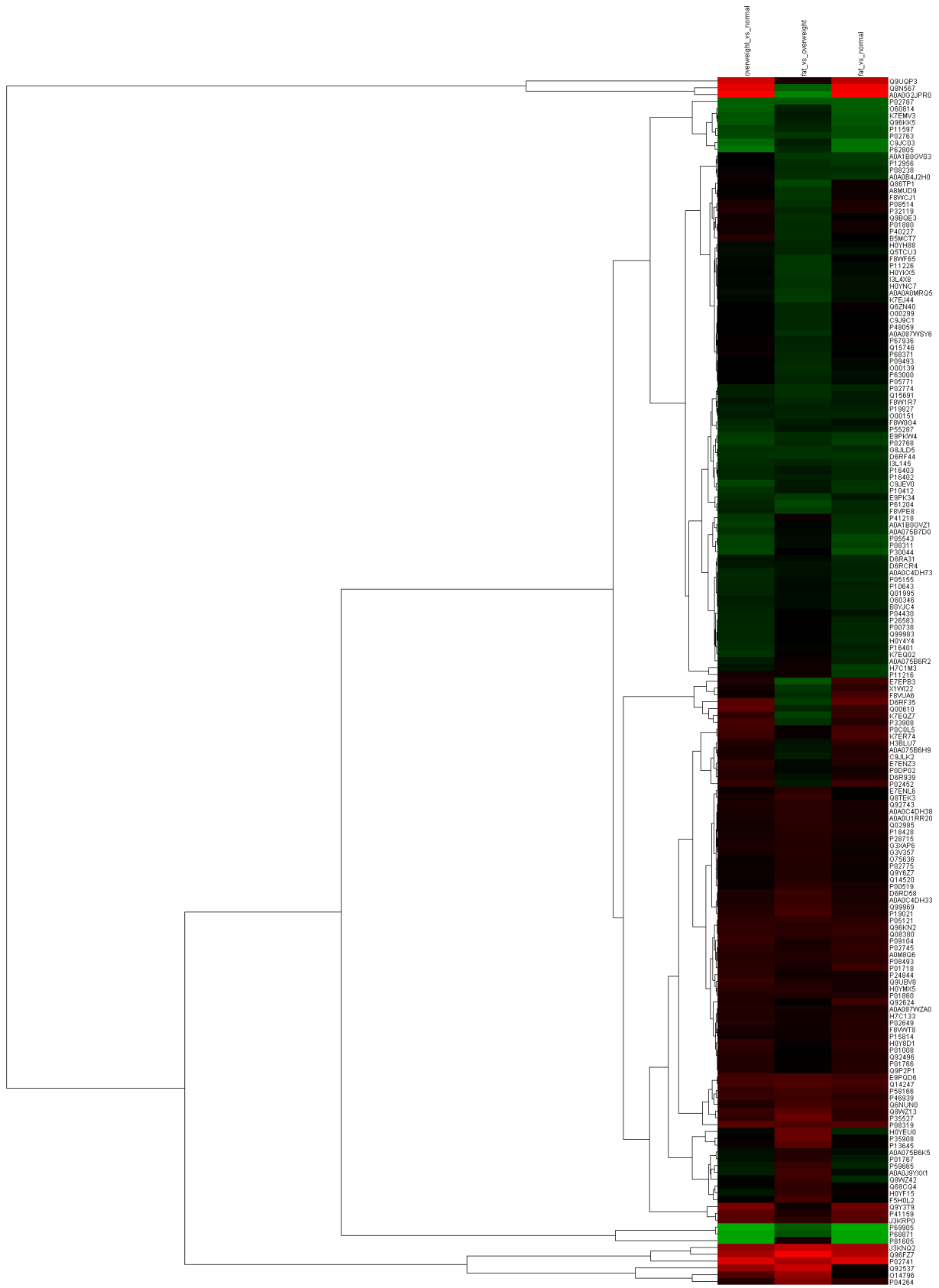


Figure S3. MS analyses on serum samples among adolescents with different weight states

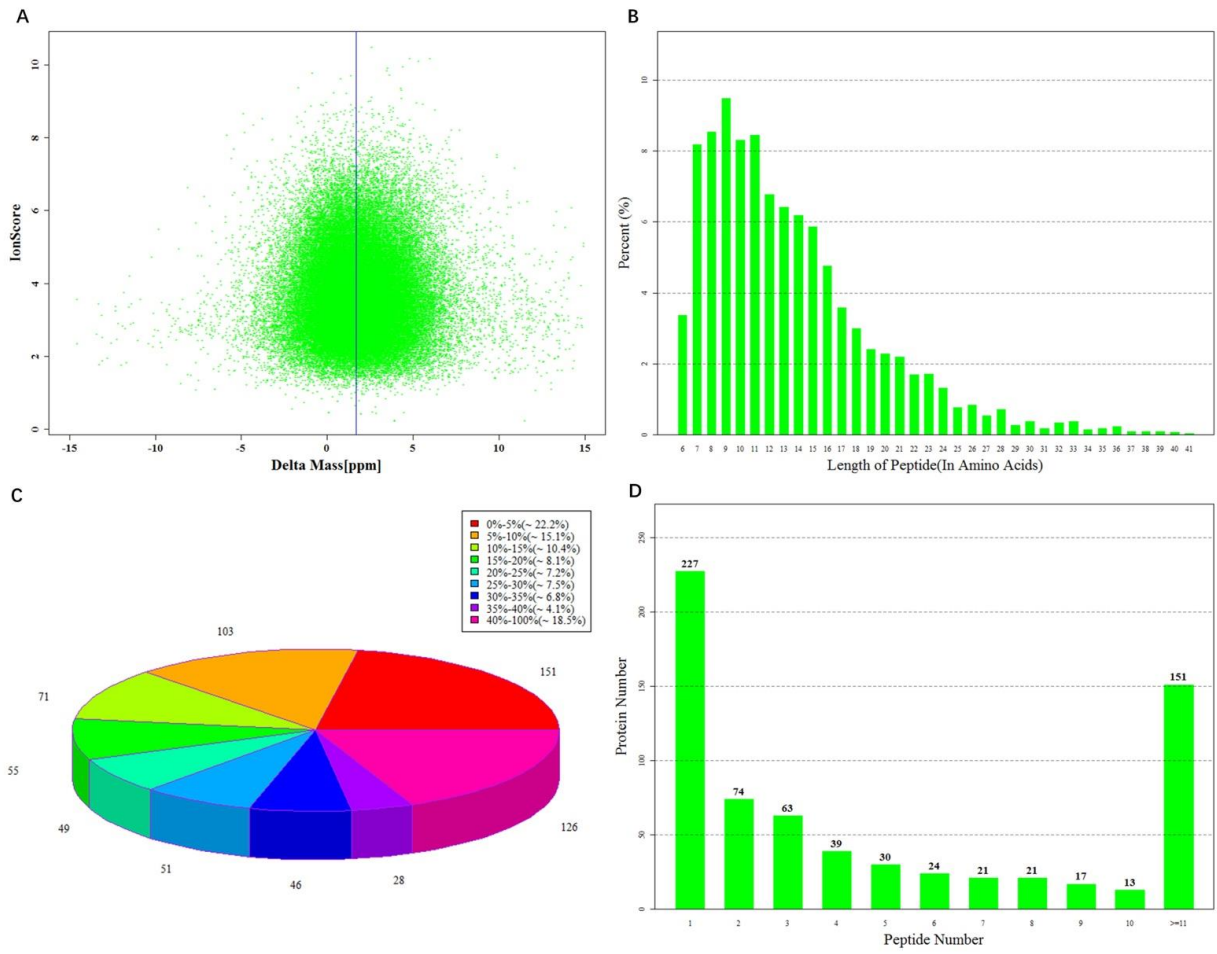


Table S2. Differentially expressed proteins according to KEGG network analysis

Accession	Description	OW/NW	OB/OW	OB/NW
P35527	Keratin, type I cytoskeletal 9 OS=Homo sapiens GN=KRT9 PE=1 SV=3 - [K1C9_HUMAN]	1.30394	1.767714	1.274833
P11597	Cholesteryl ester transfer protein OS=Homo sapiens GN=CETP PE=1 SV=2 - [CETP_HUMAN]	0.690793	0.810914	0.655009
E9PKW4	Sulfotransferase OS=Homo sapiens GN=SULT1A2 PE=1 SV=1 - [E9PKW4_HUMAN]	0.733	0.78925	0.74775
Q96KN2	Beta-Ala-His dipeptidase OS=Homo sapiens GN=CNDP1 PE=1 SV=4 - [CNDP1_HUMAN]	1.310214	1.24844	1.286774
P05121	Plasminogen activator inhibitor 1 OS=Homo sapiens GN=SERPINE1 PE=1 SV=1 - [PAI1_HUMAN]	1.266375	1.289375	1.2565
P69905	Hemoglobin subunit alpha OS=Homo sapiens GN=HBA1 PE=1 SV=2 - [HBA_HUMAN]	0.390927	0.591819	0.393191
J3KNQ2	Fibronectin type III domain-containing protein 1 (Fragment) OS=Homo sapiens GN=FNDC1 PE=1 SV=1 - [J3KNQ2_HUMAN]	2.17825	2.83575	2.47725
Q96FZ7	Charged multivesicular body protein 6 OS=Homo sapiens GN=CHMP6 PE=1 SV=3 - [CHMP6_HUMAN]	2.44225	3.84175	2.6555
P08319	Alcohol dehydrogenase 4 OS=Homo sapiens GN=ADH4 PE=1 SV=5 - [ADH4_HUMAN]	1.6318	1.55905	1.57985
K7EQZ7	Protein flightless-1 homolog (Fragment) OS=Homo sapiens GN=FLII PE=1 SV=1 - [K7EQZ7_HUMAN]	1.32175	0.70625	1.3265
P61204	ADP-ribosylation factor 3 OS=Homo sapiens GN=ARF3 PE=1 SV=2 - [ARF3_HUMAN]	0.817417	0.674417	0.801083
J3KRP0	Beta-Ala-His dipeptidase OS=Homo sapiens GN=CNDP1 PE=1 SV=2 - [J3KRP0_HUMAN]	1.60025	1.2605	1.60325
D6RF35	Vitamin D-binding protein OS=Homo sapiens GN=GC PE=1 SV=1 - [D6RF35_HUMAN]	1.607906	0.72125	1.657188
A0A0G2JPR0	Complement C4-A OS=Homo sapiens GN=C4A PE=1 SV=1 - [A0A0G2JPR0_HUMAN]	4.468295	0.489	4.228773
Q08380	Galectin-3-binding protein OS=Homo sapiens GN=LGALS3BP PE=1 SV=1 - [LG3BP_HUMAN]	1.290485	1.284614	1.311892
P62805	Histone H4 OS=Homo sapiens GN=HIST1H4A PE=1 SV=2 - [H4_HUMAN]	0.520005	0.806054	0.534228
P02763	Alpha-1-acid glycoprotein 1 OS=Homo sapiens GN=ORM1 PE=1 SV=1 - [A1AG1_HUMAN]	0.673893	0.749839	0.646857
D6RF44	Heterogeneous nuclear ribonucleoprotein D0 (Fragment) OS=Homo sapiens GN=HNRNPD PE=1 SV=8 - [D6RF44_HUMAN]	0.762125	0.763125	0.756375
P68871	Hemoglobin subunit beta OS=Homo sapiens GN=HBB PE=1 SV=2 - [HBB_HUMAN]	0.411058	0.630337	0.407713
P02768	Serum albumin OS=Homo sapiens GN=ALB PE=1 SV=2 - [ALBU_HUMAN]	0.710281	0.808015	0.714537
P04264	Keratin, type II cytoskeletal 1 OS=Homo sapiens GN=KRT1 PE=1 SV=6 - [K2C1_HUMAN]	1.214047	2.019966	1.257814
P58166	Inhibin beta E chain OS=Homo sapiens GN=INHBE	1.316	1.431125	1.365875

	PE=1 SV=1 - [INHBE_HUMAN]			
P02741	C-reactive protein OS=Homo sapiens GN=CRP	3.350727	2.497014	3.419074
	PE=1 SV=1 - [CRP_HUMAN]			
I3L145	Sex hormone-binding globulin OS=Homo sapiens	0.787779	0.819676	0.78925
	GN=SHBG PE=1 SV=1 - [I3L145_HUMAN]			
E9PQD6	Serum amyloid A protein OS=Homo sapiens	1.44325	1.483857	1.396214
	GN=SAA1 PE=1 SV=1 - [E9PQD6_HUMAN]			
P02787	Serotransferrin OS=Homo sapiens GN=TF PE=1	0.597974	0.615791	0.596658
	SV=3 - [TRFE_HUMAN]			
