

**Supplementary Table S1.** Genomic localization of annotated CpG sites within *SERPINE1* gene locus

CpGs	Genomic Location
cg20773815	chr7: 100, 768, 975
cg24539923	chr7: 100, 769, 903
cg19722814	chr7: 100, 769, 933
cg25826546	chr7: 100, 770, 061
cg20438404	chr7: 100, 770, 193
cg08506775	chr7: 100, 770, 286
cg02273392	chr7: 100, 770, 415
cg15874872	chr7: 100, 770, 435
cg20583316	chr7: 100, 771, 476
cg01971264	chr7: 100, 773, 079
cg08792542	chr7: 100, 773, 718
cg12584355	chr7: 100, 773, 852
cg11353706	chr7: 100, 774, 811
cg01975495	chr7: 100, 779, 018
cg02704552	chr7: 100, 781, 178

Note : The genomic location of each of the CpG sites was reported using the GRCh37/hg19 version of human genome [26]. Abbreviation: CpGs, Cytosine-phosphate-Guanine.

**Supplementary Table S2.** Correlation map of DNA methylation levels in blood cells collected at 5 years of age in children (boys and girls) for 15 CpG sites annotated at *SERPINE1* locus.

Boys and girls n = 323	20773815	24539923	19722814	25826546	20438404	08506775	02273392	15874872	20583316	01971264	08792542	12584355	11353706	01975495	02704552
Mean % (SD)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.04)	(0.04)
cg20773815	1	0.075	<b>-0.122</b>	0.025	-0.040	<b>-0.196*</b>	-0.017	0.030	-0.016	<b>0.153*</b>	<b>0.166*</b>	<b>0.123</b>	<b>0.161*</b>	-0.051	0.064
		0.176	<b>0.029</b>	0.654	0.477	<b>&lt;0.001</b>	0.761	0.594	0.776	<b>0.006</b>	<b>0.003</b>	<b>0.027</b>	<b>0.004</b>	0.361	0.255
cg24539923		1	<b>0.230*</b>	0.053	-0.023	<b>0.120</b>	0.056	<b>0.140</b>	0.100	<b>-0.122</b>	<b>-0.122</b>	0.048	0.022	<b>0.123</b>	-0.010
			<b>&lt;0.001</b>	0.344	0.680	<b>0.031</b>	0.312	<b>0.012</b>	0.073	<b>0.029</b>	<b>0.028</b>	0.393	0.689	<b>0.028</b>	0.852
cg19722814			1	<b>0.167*</b>	<b>0.134</b>	0.027	0.104	0.075	0.107	<b>-0.273*</b>	<b>-0.150*</b>	0.092	0.106	<b>0.256*</b>	0.106
				<b>0.003</b>	<b>0.016</b>	0.629	0.062	0.178	0.056	<b>&lt;0.001</b>	<b>0.007</b>	0.099	0.056	<b>&lt;0.001</b>	0.058
cg25826546				1	<b>0.145*</b>	0.039	0.047	0.013	<b>0.110</b>	<b>-0.114</b>	-0.078	-0.053	<b>0.140</b>	<b>0.149*</b>	0.037
					<b>0.009</b>	0.489	0.402	0.816	<b>0.049</b>	<b>0.040</b>	0.160	0.345	<b>0.012</b>	<b>0.007</b>	0.503
cg20438404					1	<b>-0.152*</b>	<b>0.129</b>	0.073	0.050	-0.084	-0.092	0.050	0.092	-0.033	0.028
						<b>0.006</b>	<b>0.021</b>	0.189	0.370	0.134	0.100	0.374	0.099	0.551	0.618
cg08506775						1	0.001	-0.019	-0.018	-0.071	-0.014	-0.050	0.050	0.092	<b>-0.122</b>
							0.993	0.729	0.747	0.204	0.803	0.370	0.369	0.098	<b>0.029</b>
cg02273392							1	<b>0.151*</b>	0.054	-0.108	0.016	-0.076	0.003	0.014	0.079
								<b>0.006</b>	0.333	0.052	0.773	0.174	0.958	0.807	0.155
cg15874872								1	-0.054	-0.075	-0.024	0.004	0.016	0.049	-0.041
									0.330	0.178	0.673	0.936	0.773	0.383	0.459
cg20583316									1	<b>-0.162*</b>	-0.058	-0.071	0.021	0.016	-0.076
										<b>0.003</b>	0.302	0.204	0.703	0.775	0.171
cg01971264										1	<b>0.257*</b>	0.071	0.014	-0.094	0.081
											<b>&lt;0.001</b>	0.203	0.798	0.092	0.146
cg08792542											1	0.059	0.065	0.009	0.032
												0.287	0.241	0.869	0.566
cg12584355												1	0.058	<b>0.138</b>	0.098
													0.298	<b>0.013</b>	0.080
cg11353706													1	<b>0.214*</b>	0.028
														<b>&lt;0.001</b>	0.619
cg01975495														1	<b>0.244*</b>
															<b>&lt;0.001</b>
cg02704552															1

Note: CpG sites associated with adiposity (P-value < 0.05 before correction for multiple testing) are represented in red and CpG site associated with plasma PAI-1 levels is represented in blue. The first line of each CpG sites corresponds to the Pearson's partial correlation coefficient whereas the second line corresponds to the P-value of the association. Model adjusted for age, sex, batch effect and cell type. Significant results with P-value < 0.05 are in bold. \*Significant result with P-value < 0.010.

**Supplementary Table S3.** Correlation map of DNA methylation levels in blood cells collected at 5 years of age in girls for 15 CpG sites annotated at *SERPINE1* locus.

Girls n = 146 Mean % (SD)	20773815	24539923	19722814	25826546	20438404	08506775	02273392	15874872	20583316	01971264	08792542	12584355	11353706	01975495	02704552
	0.87 (0.02)	0.06 (0.01)	0.04 (0.01)	0.04 (0.01)	0.03 (0.01)	0.06 (0.02)	0.02 (0.01)	0.04 (0.01)	0.03 (0.01)	0.93 (0.01)	0.96 (0.01)	0.93 (0.01)	0.83 (0.03)	0.30 (0.04)	0.80 (0.03)
cg20773815	1	-0.006	<b>-0.226*</b>	-0.037	-0.078	<b>-0.164</b>	-0.101	-0.059	-0.078	<b>0.198</b>	<b>0.228*</b>	0.138	<b>0.249*</b>	-0.085	0.159
		0.939	<b>0.006</b>	0.655	0.348	<b>0.048</b>	0.227	0.478	0.352	<b>0.017</b>	<b>0.006</b>	0.096	<b>0.002</b>	0.309	0.055
cg24539923		1	<b>0.302*</b>	-0.014	-0.055	<b>0.267*</b>	0.132	0.103	0.098	<b>-0.211</b>	-0.111	0.038	-0.035	0.135	0.014
			<b>&lt;0.001</b>	0.867	0.507	<b>0.001</b>	0.111	0.218	0.239	<b>0.010</b>	0.183	0.646	0.671	0.105	0.866
cg19722814			1	<b>0.259*</b>	0.058	0.039	0.064	0.007	0.146	<b>-0.295*</b>	<b>-0.222*</b>	0.072	0.155	<b>0.316*</b>	<b>0.187</b>
				<b>0.002</b>	0.487	0.639	0.442	0.930	0.079	<b>&lt;0.001</b>	<b>0.007</b>	0.389	0.061	<b>&lt;0.001</b>	<b>0.024</b>
cg25826546				1	<b>0.235*</b>	-0.011	0.077	<b>0.179</b>	0.131	<b>-0.204</b>	-0.122	-0.113	<b>0.267*</b>	<b>0.221*</b>	0.091
					<b>0.004</b>	0.895	0.357	<b>0.030</b>	0.114	<b>0.013</b>	0.143	0.175	<b>0.001</b>	<b>0.007</b>	0.274
cg20438404					1	-0.158	0.022	0.029	0.039	-0.083	-0.148	0.064	<b>0.201</b>	-0.016	-0.146
						0.057	0.789	0.731	0.641	0.317	0.075	0.440	<b>0.015</b>	0.849	0.079
cg08506775						1	-0.025	0.008	-0.034	-0.140	-0.094	-0.058	-0.064	0.060	-0.152
							0.766	0.928	0.687	0.093	0.259	0.484	0.441	0.471	0.067
cg02273392							1	<b>0.196</b>	0.118	-0.042	0.012	-0.056	0.041	0.111	0.110
								<b>0.018</b>	0.158	0.615	0.881	0.500	0.624	0.183	0.186
cg15874872								1	-0.104	-0.067	0.026	0.012	-0.075	-0.004	-0.054
									0.210	0.419	0.755	0.883	0.366	0.965	0.518
cg20583316									1	<b>-0.302*</b>	-0.052	-0.008	0.072	0.080	-0.082
										<b>&lt;0.001</b>	0.533	0.924	0.388	0.339	0.323
cg01971264										1	<b>0.256*</b>	0.034	-0.041	-0.036	0.027
											<b>0.002</b>	0.682	0.621	0.670	0.742
cg08792542											1	0.087	0.144	0.006	-0.004
												0.297	0.082	0.940	0.958
cg12584355												1	0.034	0.100	-0.001
													0.683	0.228	0.995
cg11353706													1	<b>0.221*</b>	0.015
														<b>0.007</b>	0.856
cg01975495														1	<b>0.288*</b>
															<b>&lt;0.001</b>
cg02704552															1

Note: CpG sites associated with adiposity (P-value < 0.05 before correction for multiple testing) are represented in red and CpG site associated with plasma PAI-1 levels is represented in blue. The first line of each CpG sites corresponds to the Pearson's partial correlation coefficient whereas the second line corresponds to the P-value of the association. Model adjusted for age, batch effect and cell type. Significant results with P-value < 0.05 are in bold. \*Significant result with P-value < 0.010.

**Supplementary Table S4.** Correlation map of DNA methylation levels in blood cells collected at 5 years of age in boys for 15 CpG sites annotated at *SERPINE1* locus.

Boys n = 177 Mean % (SD)	20773815 0.87 (0.01)	24539923 0.06 (0.01)	19722814 0.04 (0.01)	25826546 0.04 (0.01)	20438404 0.03 (0.01)	08506775 0.05 (0.02)	02273392 0.02 (0.01)	15874872 0.04 (0.01)	20583316 0.03 (0.01)	01971264 0.93 (0.01)	08792542 0.95 (0.01)	12584355 0.93 (0.01)	11353706 0.83 (0.02)	01975495 0.30 (0.05)	02704552 0.79 (0.04)
cg20773815	1	<b>0.162</b>	-0.011	0.102	-0.004	<b>-0.223*</b>	0.055	0.117	0.041	0.113	0.106	0.111	0.075	-0.022	-0.008
		<b>0.031</b>	0.881	0.175	0.956	<b>0.003</b>	0.471	0.120	0.592	0.133	0.159	0.142	0.319	0.769	0.920
cg24539923		1	<b>0.172</b>	0.105	0.008	-0.007	0.004	<b>0.177</b>	0.103	-0.050	-0.143	0.047	0.070	0.112	-0.042
			<b>0.022</b>	0.164	0.917	0.931	0.959	<b>0.019</b>	0.174	0.512	0.058	0.533	0.357	0.137	0.580
cg19722814			1	0.083	<b>0.208*</b>	0.036	0.133	0.143	0.070	<b>-0.251*</b>	-0.066	0.126	0.064	<b>0.214*</b>	0.055
				0.274	<b>0.006</b>	0.634	0.077	0.058	0.352	<b>0.001</b>	0.382	0.096	0.400	<b>0.004</b>	0.465
cg25826546				1	0.063	0.057	0.034	<b>-0.155</b>	0.092	-0.036	-0.047	-0.003	-0.001	0.087	-0.026
					0.407	0.449	0.650	<b>0.039</b>	0.223	0.638	0.535	0.967	0.988	0.249	0.728
cg20438404					1	-0.145	<b>0.211*</b>	0.112	0.059	-0.083	-0.040	0.039	-0.003	-0.046	<b>0.155</b>
						0.054	<b>0.005</b>	0.139	0.435	0.273	0.599	0.610	0.970	0.546	<b>0.039</b>
cg08506775						1	0.032	-0.037	-0.007	-0.028	0.036	-0.059	0.131	0.111	-0.124
							0.676	0.624	0.931	0.707	0.632	0.435	0.083	0.143	0.101
cg02273392							1	0.114	0.006	<b>-0.157</b>	0.026	-0.086	-0.024	-0.052	0.070
								0.131	0.942	<b>0.037</b>	0.729	0.253	0.755	0.488	0.356
cg15874872								1	-0.012	-0.081	-0.069	-0.001	0.102	0.090	-0.030
									0.869	0.283	0.364	0.987	0.177	0.233	0.690
cg20583316									1	-0.052	-0.063	-0.127	-0.022	-0.030	-0.073
										0.489	0.408	0.091	0.774	0.694	0.337
cg01971264										1	<b>0.256*</b>	0.101	0.060	-0.137	0.115
											<b>0.001</b>	0.179	0.425	0.068	0.127
cg08792542											1	0.025	-0.014	0.010	0.051
												0.739	0.850	0.897	0.498
cg12584355												1	0.076	<b>0.169</b>	<b>0.167</b>
													0.312	<b>0.025</b>	<b>0.027</b>
cg11353706													1	<b>0.209*</b>	0.031
														<b>0.005</b>	0.685
cg01975495														1	<b>0.216*</b>
															<b>0.004</b>
cg02704552															1

Note: CpG sites associated with adiposity (P-value < 0.05 before correction for multiple testing) are represented in red and CpG site associated with plasma PAI-1 levels is represented in blue. The first line of each CpG sites corresponds to the Pearson's partial correlation coefficient whereas the second line corresponds to the P-value of the association. Model adjusted for age, batch effect and cell type. Significant results with P-value < 0.05 are in bold. \*Significant result with P-value < 0.010.

**Supplementary Table S5.** Associations between plasma PAI-1 levels and adiposity markers in all children aged 5 years old with values of an interaction term between plasma PAI-1 levels and sex for each of the associations tested.

	<b>Log<sub>10</sub> Waist circumference<sup>a</sup>, cm N = 341</b>	<b>Log<sub>10</sub> DXA trunk fat<sup>a</sup>, % N = 308</b>	<b>Log<sub>10</sub> DXA android fat<sup>a</sup>, % N = 308</b>	<b>Log<sub>10</sub> DXA total fat, <sup>a</sup> % N = 308</b>	<b>Log<sub>10</sub> Total skinfold<sup>ac</sup>, mm N = 291</b>	<b>BMI z- score<sup>a</sup> N = 341</b>
<b>Log<sub>10</sub> PAI-1 plasma level, ng/ml</b>	r = 0.095 p = 0.081	r = 0.108 p = 0.059	r = 0.092 p = 0.109	r = 0.104 p = 0.070	r = 0.058 p = 0.287	r = 0.036 p = 0.506
<b>Interaction term</b>						
<b>Log<sub>10</sub> PAI-1 plasma level, ng/ml</b>	$\beta_{\text{PAI-1}}$ : 0.014 $\beta_{\text{inter}}$ : -0.008 $p_{\text{inter}}$ : 0.477	$\beta_{\text{PAI-1}}$ : 0.018 $\beta_{\text{inter}}$ : 0.008 $p_{\text{inter}}$ : 0.725	$\beta_{\text{PAI-1}}$ : 0.018 $\beta_{\text{inter}}$ : 0.005 $p_{\text{inter}}$ : 0.838	$\beta_{\text{PAI-1}}$ : 0.014 $\beta_{\text{inter}}$ : 0.008 $p_{\text{inter}}$ : 0.675	$\beta_{\text{PAI-1}}$ : 0.036 $\beta_{\text{inter}}$ : -0.026 $p_{\text{inter}}$ : 0.549	$\beta_{\text{PAI-1}}$ : 0.218 $\beta_{\text{inter}}$ : -0.198 $p_{\text{inter}}$ : 0.570

Note: r is the Pearson's partial correlation coefficient.  $\beta_{\text{PAI-1}}$ : Regression coefficient of plasma PAI-1 levels in girls.  $\beta_{\text{inter}}$ : Regression coefficient of the interaction term (plasma PAI-1\*sex).  $p_{\text{inter}}$ : P-value of the interaction term. <sup>a</sup>Model adjusted for age, sex, batch effect and cell type heterogeneity. Abbreviations: BMI, body mass index; DXA, Dual-energy X-ray absorptiometry. <sup>c</sup>Total skinfolds thickness is the sum of biceps, triceps, subscapular and suprailiac skinfolds.

**Supplementary Table S6.** Associations between blood cells DNAm and adiposity markers and plasma PAI-1 levels in all children aged 5 years old and stratified by sex only for CpG sites with an interaction term.

	Adiposity markers						Log <sub>10</sub> PAI-1 plasma level, ng/ml <sup>b</sup>
	Log <sub>10</sub> Waist circumference <sup>a</sup> , cm	Log <sub>10</sub> DXA trunk fat <sup>a</sup> , %	Log <sub>10</sub> DXA android fat <sup>a</sup> , %	Log <sub>10</sub> DXA total fat <sup>a</sup> , %	Log <sub>10</sub> Total skinfold <sup>ac</sup> , mm	BMI z-score <sup>a</sup>	
All children							
	N = 323	N = 297	N = 297	N = 297	N = 322	N = 323	N = 321
cg20773815	r = -0.070 p = 0.219	r = -0.051 p = 0.392	r = -0.089 p = 0.131	r = -0.044 p = 0.461	r = -0.117 p = 0.038	r = -0.059 p = 0.297	r = 0.041 p = 0.469
cg24539923	r = -0.032 p = 0.566	r = 0.004 p = 0.948	r = 0.008 p = 0.896	r = 0.023 p = 0.696	r = 0.011 p = 0.852	r = 0.031 p = 0.582	r = -0.074 p = 0.194
cg19722814	r = -0.072 p = 0.203	r = -0.076 p = 0.197	r = -0.057 p = 0.338	r = -0.049 p = 0.406	r = -0.052 p = 0.362	r = -0.064 p = 0.262	r = -0.097 p = 0.088
cg25826546	r = -0.006 p = 0.921	r = -0.096 p = 0.103	r = -0.088 p = 0.135	r = -0.102 p = 0.085	r = -0.035 p = 0.537	r = -0.052 p = 0.360	r = -0.076 p = 0.179
cg20438404	r = -0.013 p = 0.824	r = -0.029 p = 0.624	r = -0.017 p = 0.770	r = -0.053 p = 0.371	r = -0.034 p = 0.554	r = -0.028 p = 0.617	r = 0.075 p = 0.183
cg08506775	r = 0.055 p = 0.333	r = 0.033 p = 0.582	r = 0.084 p = 0.153	r = 0.070 p = 0.236	r = 0.096 p = 0.089	r = 0.083 p = 0.140	r = 0.064 p = 0.261
cg02273392	r = -0.042 p = 0.463	r = -0.019 p = 0.754	r = -0.006 p = 0.914	r = 0.001 p = 0.991	r = -0.054 p = 0.338	r = -0.036 p = 0.520	r = -0.035 p = 0.538
cg15874872	r = -0.031 p = 0.589	r = -0.007 p = 0.908	r = 0.028 p = 0.634	r = 0.011 p = 0.849	r = -0.046 p = 0.415	r = 0.001 p = 0.981	r = 0.086 p = 0.129
cg20583316	r = 0.015 p = 0.796	r = 0.053 p = 0.371	r = 0.063 p = 0.285	r = 0.055 p = 0.348	r = 0.064 p = 0.256	r = 0.031 p = 0.590	r = 0.026 p = 0.642
cg01971264	r = -0.001 p = 0.992	r = 0.124 p = 0.035	r = 0.082 p = 0.167	r = 0.094 p = 0.110	r = 0.071 p = 0.207	r = 0.036 p = 0.525	r = 0.062 p = 0.275
cg08792542	r = -0.022 p = 0.699	r = -0.001 p = 0.982	r = -0.017 p = 0.768	r = 0.000 p = 0.997	r = -0.016 p = 0.780	r = -0.016 p = 0.782	r = 0.072 p = 0.202
cg12584355	r = 0.049 p = 0.387	r = -0.017 p = 0.777	r = 0.066 p = 0.263	r = -0.054 p = 0.357	r = -0.031 p = 0.587	r = -0.040 p = 0.475	r = -0.081 p = 0.155
cg11353706	r = -0.127 p = 0.024	r = 0.777 p = -0.126	r = -0.130 p = 0.028	r = -0.107 p = 0.070	r = -0.085 p = 0.136	r = -0.085 p = 0.133	r = 0.128 p = 0.023
cg01975495	r = -0.072 p = 0.203	r = -0.030 p = 0.610	r = -0.013 p = 0.823	r = -0.048 p = 0.420	r = -0.049 p = 0.384	r = -0.053 p = 0.352	r = 0.053 p = 0.352
cg02704552	r = 0.053 p = 0.349	r = 0.610 p = 0.047	r = 0.024 p = 0.690	r = 0.041 p = 0.488	r = 0.020 p = 0.727	r = 0.063 p = 0.267	r = -0.083 p = 0.145
Girls							
	N = 146	N = 136	N = 136	N = 136	N = 145	N = 146	N = 144
cg25826546	r = -0.054 P = 0.532	r = -0.192 p = 0.030	r = -0.151 P = 0.089	r = -0.207 p = 0.019	r = -0.032 P = 0.711	r = -0.084 p = 0.326	
cg11353706	r = -0.258 p = 0.002	r = -0.189 p = 0.032	r = -0.215 p = 0.015	r = -0.203 p = 0.021	r = -0.212 p = 0.013	r = -0.278 p < 0.001	
cg01975495	r = -0.174 p = 0.042	r = -0.152 p = 0.086	r = -0.154 p = 0.082	r = -0.207 p = 0.019	r = -0.152 p = 0.076	r = -0.146 p = 0.088	
cg02273392	r = 0.109 p = 0.220	r = 0.134 p = 0.133	r = 0.151 p = 0.090	r = 0.172 p = 0.052	r = 0.150 p = 0.090	r = 0.111 p = 0.212	
cg19722814							r = -0.056 p = 0.515
Boys							
	N = 177	N = 161	N = 161	N = 161	N = 177	N = 177	N = 177
cg25826546	r = 0.097 p = 0.233	r = 0.043 p = 0.594	r = 0.016 p = 0.843	r = 0.044 p = 0.593	r = 0.021 p = 0.796	r = 0.002 p = 0.977	
cg11353706	r = 0.024	r = 0.018	r = 0.034	r = 0.035	r = 0.050	r = 0.095	

	p = 0.767	p = 0.829	p = 0.673	p = 0.667	p = 0.537	p = 0.243	
<b>cg01975495</b>	r = 0.038 p = 0.645	r = 0.081 0.319	r = 0.125 p = 0.124	r = 0.090 p = 0.269	r = 0.022 p = 0.789	r = 0.019 p = 0.817	
<b>cg02273392</b>	r = -0.155 p = 0.041	r = -0.148 p = 0.063	r = -0.146 p = 0.067	r = -0.130 p = 0.102	r = -0.172 p = 0.023	r = -0.112 p = 0.139	
<b>cg19722814</b>							<b>r = -0.178</b> <b>p = 0.021</b>

Note: r is the Pearson's partial correlation coefficient. <sup>a</sup>Model adjusted for age, sex (only when tested in all children together), batch effect and cell type heterogeneity and significant result with P-value <0.017 are in bold (considering three independent groups of adiposity markers). <sup>b</sup>Model additionally adjusted for BMI and significant P-value < 0.050 are in bold. Abbreviations: BMI, body mass index; DXA, Dual-energy X-ray absorptiometry. <sup>c</sup>Total skinfolds thickness is the sum of biceps, triceps, subscapular and suprailiac skinfolds.

**Supplementary Table S7.** Interaction term between DNA methylation and sex and its association with adiposity markers and plasma PAI-1 levels.

DNAm level (M-value)	Adiposity markers						Log <sub>10</sub> PAI-1, pg/ml
	Log <sub>10</sub> Waist circumference, cm	Log <sub>10</sub> DXA trunk fat, %	Log <sub>10</sub> DXA android fat, %	Log <sub>10</sub> DXA total fat, %	Log <sub>10</sub> Total skinfold <sup>a</sup> , mm	BMI z-score	
cg20773815	$\beta_{\text{met}}$ : -0.017	$\beta_{\text{met}}$ : -0.028	$\beta_{\text{met}}$ : -0.055	$\beta_{\text{met}}$ : -0.014	$\beta_{\text{met}}$ : -0.111	$\beta_{\text{met}}$ : -0.374	$\beta_{\text{met}}$ : 0.103
	$\beta_{\text{inter}}$ : 0.011	$\beta_{\text{inter}}$ : 0.026	$\beta_{\text{inter}}$ : 0.053	$\beta_{\text{inter}}$ : 0.006	$\beta_{\text{inter}}$ : 0.082	$\beta_{\text{inter}}$ : 0.175	$\beta_{\text{inter}}$ : -0.083
	$p_{\text{inter}}$ : 0.541	$p_{\text{inter}}$ : 0.482	$p_{\text{inter}}$ : 0.202	$p_{\text{inter}}$ : 0.864	$p_{\text{inter}}$ : 0.246	$p_{\text{inter}}$ : 0.758	$p_{\text{inter}}$ : 0.643
cg24539923	$\beta_{\text{met}}$ : 0.002	$\beta_{\text{met}}$ : 0.011	$\beta_{\text{met}}$ : 0.003	$\beta_{\text{met}}$ : 0.014	$\beta_{\text{met}}$ : 0.042	$\beta_{\text{met}}$ : 0.258	$\beta_{\text{met}}$ : -0.040
	$\beta_{\text{inter}}$ : -0.009	$\beta_{\text{inter}}$ : -0.022	$\beta_{\text{inter}}$ : -0.002	$\beta_{\text{inter}}$ : -0.021	$\beta_{\text{inter}}$ : -0.075	$\beta_{\text{inter}}$ : -0.322	$\beta_{\text{inter}}$ : -0.055
	$p_{\text{inter}}$ : 0.379	$p_{\text{inter}}$ : 0.314	$p_{\text{inter}}$ : 0.928	$p_{\text{inter}}$ : 0.282	$p_{\text{inter}}$ : 0.066	$p_{\text{inter}}$ : 0.322	$p_{\text{inter}}$ : 0.592
cg19722814	$\beta_{\text{met}}$ : -0.007	$\beta_{\text{met}}$ : -0.020	$\beta_{\text{met}}$ : -0.021	$\beta_{\text{met}}$ : -0.015	$\beta_{\text{met}}$ : -0.024	$\beta_{\text{met}}$ : -0.253	<b><math>\beta_{\text{met}}</math>: 0.003</b>
	$\beta_{\text{inter}}$ : 0.001	$\beta_{\text{inter}}$ : 0.015	$\beta_{\text{inter}}$ : 0.022	$\beta_{\text{inter}}$ : 0.016	$\beta_{\text{inter}}$ : 0.015	$\beta_{\text{inter}}$ : 0.181	<b><math>\beta_{\text{inter}}</math>: -0.180</b>
	$p_{\text{inter}}$ : 0.869	$p_{\text{inter}}$ : 0.361	$p_{\text{inter}}$ : 0.223	$p_{\text{inter}}$ : 0.255	$p_{\text{inter}}$ : 0.614	$p_{\text{inter}}$ : 0.456	<b><math>p_{\text{inter}}</math>: 0.018</b>
cg25826546	$\beta_{\text{met}}$ : -0.009	<b><math>\beta_{\text{met}}</math>: -0.046</b>	<b><math>\beta_{\text{met}}</math>: -0.043</b>	<b><math>\beta_{\text{met}}</math>: -0.040</b>	$\beta_{\text{met}}$ : -0.030	$\beta_{\text{met}}$ : -0.323	$\beta_{\text{met}}$ : -0.088
	$\beta_{\text{inter}}$ : 0.018	<b><math>\beta_{\text{inter}}</math>: 0.062</b>	<b><math>\beta_{\text{inter}}</math>: 0.054</b>	<b><math>\beta_{\text{inter}}</math>: 0.053</b>	$\beta_{\text{inter}}$ : 0.038	$\beta_{\text{inter}}$ : 0.374	$\beta_{\text{inter}}$ : 0.038
	$p_{\text{inter}}$ : 0.098	<b><math>p_{\text{inter}}</math>: 0.005</b>	<b><math>p_{\text{inter}}</math>: 0.025</b>	<b><math>p_{\text{inter}}</math>: 0.006</b>	$p_{\text{inter}}$ : 0.356	$p_{\text{inter}}$ : 0.259	$p_{\text{inter}}$ : 0.718
cg20438404	$\beta_{\text{met}}$ : 0.001	$\beta_{\text{met}}$ : -0.006	$\beta_{\text{met}}$ : 0.004	$\beta_{\text{met}}$ : -0.013	$\beta_{\text{met}}$ : -0.007	$\beta_{\text{met}}$ : -0.170	$\beta_{\text{met}}$ : 0.138
	$\beta_{\text{inter}}$ : -0.004	$\beta_{\text{inter}}$ : 0.001	$\beta_{\text{inter}}$ : -0.015	$\beta_{\text{inter}}$ : 0.008	$\beta_{\text{inter}}$ : -0.009	$\beta_{\text{inter}}$ : 0.165	$\beta_{\text{inter}}$ : -0.129
	$p_{\text{inter}}$ : 0.740	$p_{\text{inter}}$ : 0.979	$p_{\text{inter}}$ : 0.521	$p_{\text{inter}}$ : 0.677	$p_{\text{inter}}$ : 0.816	$p_{\text{inter}}$ : 0.613	$p_{\text{inter}}$ : 0.206
cg08506775	$\beta_{\text{met}}$ : 0.004	$\beta_{\text{met}}$ : 0.004	$\beta_{\text{met}}$ : 0.007	$\beta_{\text{met}}$ : 0.006	$\beta_{\text{met}}$ : 0.020	$\beta_{\text{met}}$ : 0.149	$\beta_{\text{met}}$ : 0.002
	$\beta_{\text{inter}}$ : -0.003	$\beta_{\text{inter}}$ : -0.004	$\beta_{\text{inter}}$ : -0.002	$\beta_{\text{inter}}$ : -0.004	$\beta_{\text{inter}}$ : -0.016	$\beta_{\text{inter}}$ : -0.127	$\beta_{\text{inter}}$ : 0.025
	$p_{\text{inter}}$ : 0.320	$p_{\text{inter}}$ : 0.528	$p_{\text{inter}}$ : 0.734	$p_{\text{inter}}$ : 0.442	$p_{\text{inter}}$ : 0.188	$p_{\text{inter}}$ : 0.197	$p_{\text{inter}}$ : 0.432
cg02273392	$\beta_{\text{met}}$ : 0.005	<b><math>\beta_{\text{met}}</math>: 0.018</b>	$\beta_{\text{met}}$ : 0.018	<b><math>\beta_{\text{met}}</math>: 0.020</b>	<b><math>\beta_{\text{met}}</math>: 0.025</b>	$\beta_{\text{met}}$ : 0.135	$\beta_{\text{met}}$ : -0.022
	$\beta_{\text{inter}}$ : -0.015	<b><math>\beta_{\text{inter}}</math>: -0.037</b>	$\beta_{\text{inter}}$ : -0.034	<b><math>\beta_{\text{inter}}</math>: -0.035</b>	<b><math>\beta_{\text{inter}}</math>: -0.071</b>	$\beta_{\text{inter}}$ : -0.382	$\beta_{\text{inter}}$ : -0.006
	$p_{\text{inter}}$ : 0.085	<b><math>p_{\text{inter}}</math>: 0.035</b>	$p_{\text{inter}}$ : 0.076	<b><math>p_{\text{inter}}</math>: 0.021</b>	<b><math>p_{\text{inter}}</math>: 0.028</b>	$p_{\text{inter}}$ : 0.144	$p_{\text{inter}}$ : 0.939
cg15874872	$\beta_{\text{met}}$ : -0.004	$\beta_{\text{met}}$ : -0.011	$\beta_{\text{met}}$ : 0.000	$\beta_{\text{met}}$ : -0.006	$\beta_{\text{met}}$ : -0.015	$\beta_{\text{met}}$ : -0.151	$\beta_{\text{met}}$ : 0.142
	$\beta_{\text{inter}}$ : 0.001	$\beta_{\text{inter}}$ : 0.018	$\beta_{\text{inter}}$ : 0.011	$\beta_{\text{inter}}$ : 0.014	$\beta_{\text{inter}}$ : -0.002	$\beta_{\text{inter}}$ : 0.298	$\beta_{\text{inter}}$ : -0.131
	$p_{\text{inter}}$ : 0.883	$p_{\text{inter}}$ : 0.382	$p_{\text{inter}}$ : 0.633	$p_{\text{inter}}$ : 0.426	$p_{\text{inter}}$ : 0.962	$p_{\text{inter}}$ : 0.335	$p_{\text{inter}}$ : 0.180
cg20583316	$\beta_{\text{met}}$ : 0.008	$\beta_{\text{met}}$ : 0.014	$\beta_{\text{met}}$ : 0.013	$\beta_{\text{met}}$ : 0.002	$\beta_{\text{met}}$ : 0.029	$\beta_{\text{met}}$ : 0.154	$\beta_{\text{met}}$ : -0.003
	$\beta_{\text{inter}}$ : -0.012	$\beta_{\text{inter}}$ : -0.005	$\beta_{\text{inter}}$ : -0.005	$\beta_{\text{inter}}$ : 0.001	$\beta_{\text{inter}}$ : -0.007	$\beta_{\text{inter}}$ : -0.106	$\beta_{\text{inter}}$ : 0.052
	$p_{\text{inter}}$ : 0.292	$p_{\text{inter}}$ : 0.823	$p_{\text{inter}}$ : 0.973	$p_{\text{inter}}$ : 0.545	$p_{\text{inter}}$ : 0.875	$p_{\text{inter}}$ : 0.764	$p_{\text{inter}}$ : 0.638
cg01971264	$\beta_{\text{met}}$ : 0.007	$\beta_{\text{met}}$ : 0.050	$\beta_{\text{met}}$ : 0.044	$\beta_{\text{met}}$ : 0.046	$\beta_{\text{met}}$ : 0.057	$\beta_{\text{met}}$ : 0.502	$\beta_{\text{met}}$ : -0.035
	$\beta_{\text{inter}}$ : -0.012	$\beta_{\text{inter}}$ : -0.031	$\beta_{\text{inter}}$ : -0.036	$\beta_{\text{inter}}$ : -0.044	$\beta_{\text{inter}}$ : -0.036	$\beta_{\text{inter}}$ : -0.641	$\beta_{\text{inter}}$ : 0.209
	$p_{\text{inter}}$ : 0.402	$p_{\text{inter}}$ : 0.299	$p_{\text{inter}}$ : 0.280	$p_{\text{inter}}$ : 0.094	$p_{\text{inter}}$ : 0.520	$p_{\text{inter}}$ : 0.154	$p_{\text{inter}}$ : 0.142
cg08792542	$\beta_{\text{met}}$ : -0.018	$\beta_{\text{met}}$ : -0.006	$\beta_{\text{met}}$ : -0.002	$\beta_{\text{met}}$ : 0.006	$\beta_{\text{met}}$ : -0.051	$\beta_{\text{met}}$ : -0.376	$\beta_{\text{met}}$ : 0.034
	$\beta_{\text{inter}}$ : 0.030	$\beta_{\text{inter}}$ : 0.010	$\beta_{\text{inter}}$ : -0.006	$\beta_{\text{inter}}$ : -0.012	$\beta_{\text{inter}}$ : 0.083	$\beta_{\text{inter}}$ : 0.596	$\beta_{\text{inter}}$ : 0.130
	$p_{\text{inter}}$ : 0.067	$p_{\text{inter}}$ : 0.747	$p_{\text{inter}}$ : 0.864	$p_{\text{inter}}$ : 0.673	$p_{\text{inter}}$ : 0.177	$p_{\text{inter}}$ : 0.225	$p_{\text{inter}}$ : 0.401
cg12584355	$\beta_{\text{met}}$ : 0.004	$\beta_{\text{met}}$ : -0.021	$\beta_{\text{met}}$ : -0.008	$\beta_{\text{met}}$ : -0.012	$\beta_{\text{met}}$ : -0.035	$\beta_{\text{met}}$ : -0.245	$\beta_{\text{met}}$ : -0.136
	$\beta_{\text{inter}}$ : 0.008	$\beta_{\text{inter}}$ : 0.031	$\beta_{\text{inter}}$ : 0.033	$\beta_{\text{inter}}$ : -0.008	$\beta_{\text{inter}}$ : 0.030	$\beta_{\text{inter}}$ : 0.079	$\beta_{\text{inter}}$ : 0.012
	$p_{\text{inter}}$ : 0.681	$p_{\text{inter}}$ : 0.435	$p_{\text{inter}}$ : 0.452	$p_{\text{inter}}$ : 0.815	$p_{\text{inter}}$ : 0.680	$p_{\text{inter}}$ : 0.891	$p_{\text{inter}}$ : 0.946
cg11353706	<b><math>\beta_{\text{met}}</math>: -0.040</b>	<b><math>\beta_{\text{met}}</math>: -0.065</b>	<b><math>\beta_{\text{met}}</math>: -0.078</b>	<b><math>\beta_{\text{met}}</math>: -0.054</b>	<b><math>\beta_{\text{met}}</math>: -0.121</b>	<b><math>\beta_{\text{met}}</math>: -1.153</b>	$\beta_{\text{met}}$ : 0.136
	<b><math>\beta_{\text{inter}}</math>: 0.044</b>	<b><math>\beta_{\text{inter}}</math>: 0.066</b>	<b><math>\beta_{\text{inter}}</math>: 0.081</b>	<b><math>\beta_{\text{inter}}</math>: 0.059</b>	<b><math>\beta_{\text{inter}}</math>: 0.153</b>	<b><math>\beta_{\text{inter}}</math>: 1.561</b>	$\beta_{\text{inter}}$ : 0.043
	<b><math>p_{\text{inter}}</math>: 0.001</b>	<b><math>p_{\text{inter}}</math>: 0.020</b>	<b><math>p_{\text{inter}}</math>: 0.009</b>	<b><math>p_{\text{inter}}</math>: 0.018</b>	<b><math>p_{\text{inter}}</math>: 0.004</b>	<b><math>p_{\text{inter}}</math>: &lt;0.001</b>	$p_{\text{inter}}$ : 0.752
cg01975495	<b><math>\beta_{\text{met}}</math>: -0.031</b>	<b><math>\beta_{\text{met}}</math>: -0.060</b>	<b><math>\beta_{\text{met}}</math>: -0.068</b>	<b><math>\beta_{\text{met}}</math>: -0.056</b>	<b><math>\beta_{\text{met}}</math>: -0.108</b>	<b><math>\beta_{\text{met}}</math>: -0.739</b>	$\beta_{\text{met}}$ : 0.035
	<b><math>\beta_{\text{inter}}</math>: 0.036</b>	<b><math>\beta_{\text{inter}}</math>: 0.085</b>	<b><math>\beta_{\text{inter}}</math>: 0.104</b>	<b><math>\beta_{\text{inter}}</math>: 0.074</b>	<b><math>\beta_{\text{inter}}</math>: 0.141</b>	<b><math>\beta_{\text{inter}}</math>: 0.900</b>	$\beta_{\text{inter}}$ : 0.043
	<b><math>p_{\text{inter}}</math>: 0.002</b>	<b><math>p_{\text{inter}}</math>: &lt;0.001</b>	<b><math>p_{\text{inter}}</math>: &lt;0.001</b>	<b><math>p_{\text{inter}}</math>: &lt;0.001</b>	<b><math>p_{\text{inter}}</math>: 0.001</b>	<b><math>p_{\text{inter}}</math>: 0.011</b>	$p_{\text{inter}}$ : 0.706



<b>cg02704552</b>	$\beta_{\text{met}}$ : 0.008	$\beta_{\text{met}}$ : -0.006	$\beta_{\text{met}}$ : -0.020	$\beta_{\text{met}}$ : 0.001	$\beta_{\text{met}}$ : -0.018	$\beta_{\text{met}}$ : 0.161	$\beta_{\text{met}}$ : -0.133
	$\beta_{\text{inter}}$ : -0.003	$\beta_{\text{inter}}$ : 0.027	$\beta_{\text{inter}}$ : 0.042	$\beta_{\text{inter}}$ : 0.011	$\beta_{\text{inter}}$ : 0.042	$\beta_{\text{inter}}$ : 0.077	$\beta_{\text{inter}}$ : 0.075
	$p_{\text{inter}}$ : 0.819	$p_{\text{inter}}$ : 0.276	$p_{\text{inter}}$ : 0.128	$p_{\text{inter}}$ : 0.614	$p_{\text{inter}}$ : 0.357	$p_{\text{inter}}$ : 0.833	$p_{\text{inter}}$ : 0.513

Note:  $\beta_{\text{met}}$ : Regression coefficient of DNAm in girls.  $\beta_{\text{inter}}$ : Regression coefficient of the interaction term (DNAm\*sex).  $p_{\text{inter}}$ : P-value of the interaction term. For adiposity markers, regression models are adjusted for age, sex, batch effect and cell type heterogeneity. For PAI-1 plasma levels, models are additionally adjusted for BMI z-score. Significant results with P-value < 0.05 are in bold. <sup>a</sup>Total skinfolds is the sum of biceps, triceps, subscapular and suprailiac skinfolds thickness. Abbreviations: BMI, body mass index; DXA, Dual-energy X-ray absorptiometry.