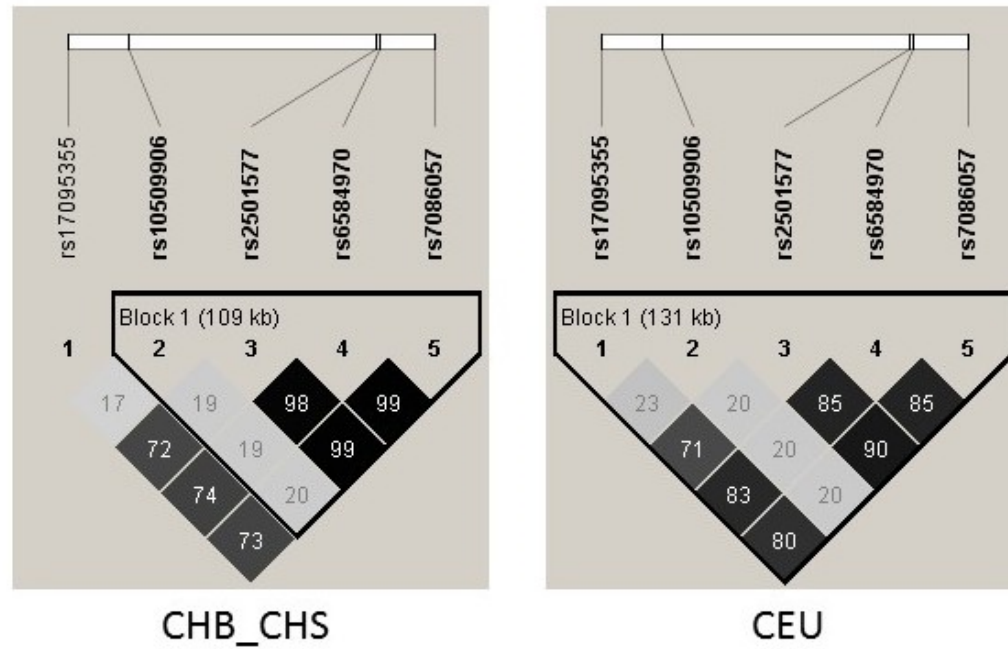
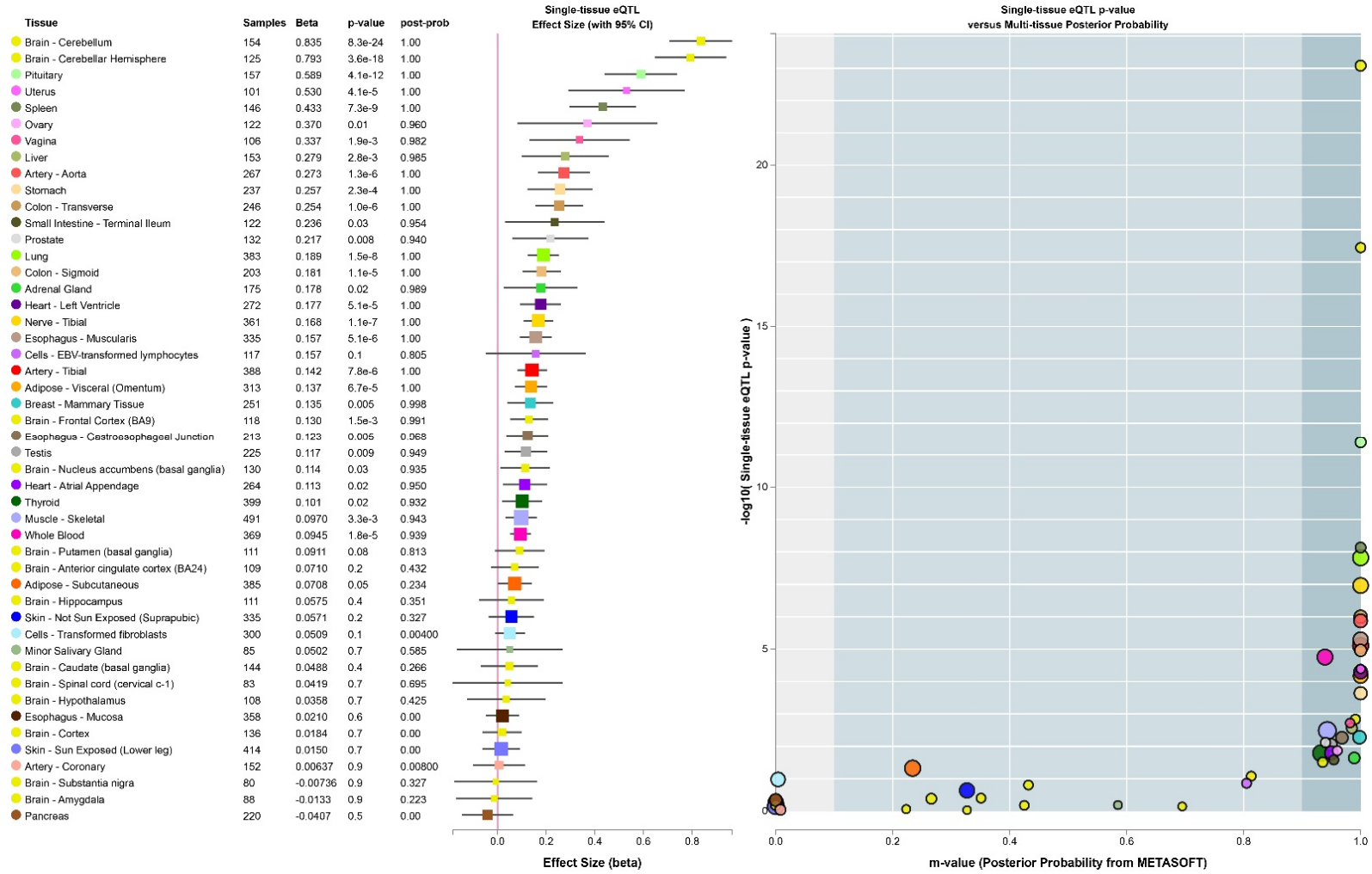


Supplementary Figure 1. The LD (r^2) patterns of five SNPs in *ADD3* in Chinese from Beijing and Southern (CHB_CHS) and Utah residents with ancestry from northern and western Europe (CEU). The LD patterns of rs17095355, rs10509906, rs2501577, rs6584970 and rs7086057 between (CHB_CHS) and CEU populations are similar, which are slightly different with the LD pattern of rs17095355 in CHB_CHS populations, reflecting the potential population difference.

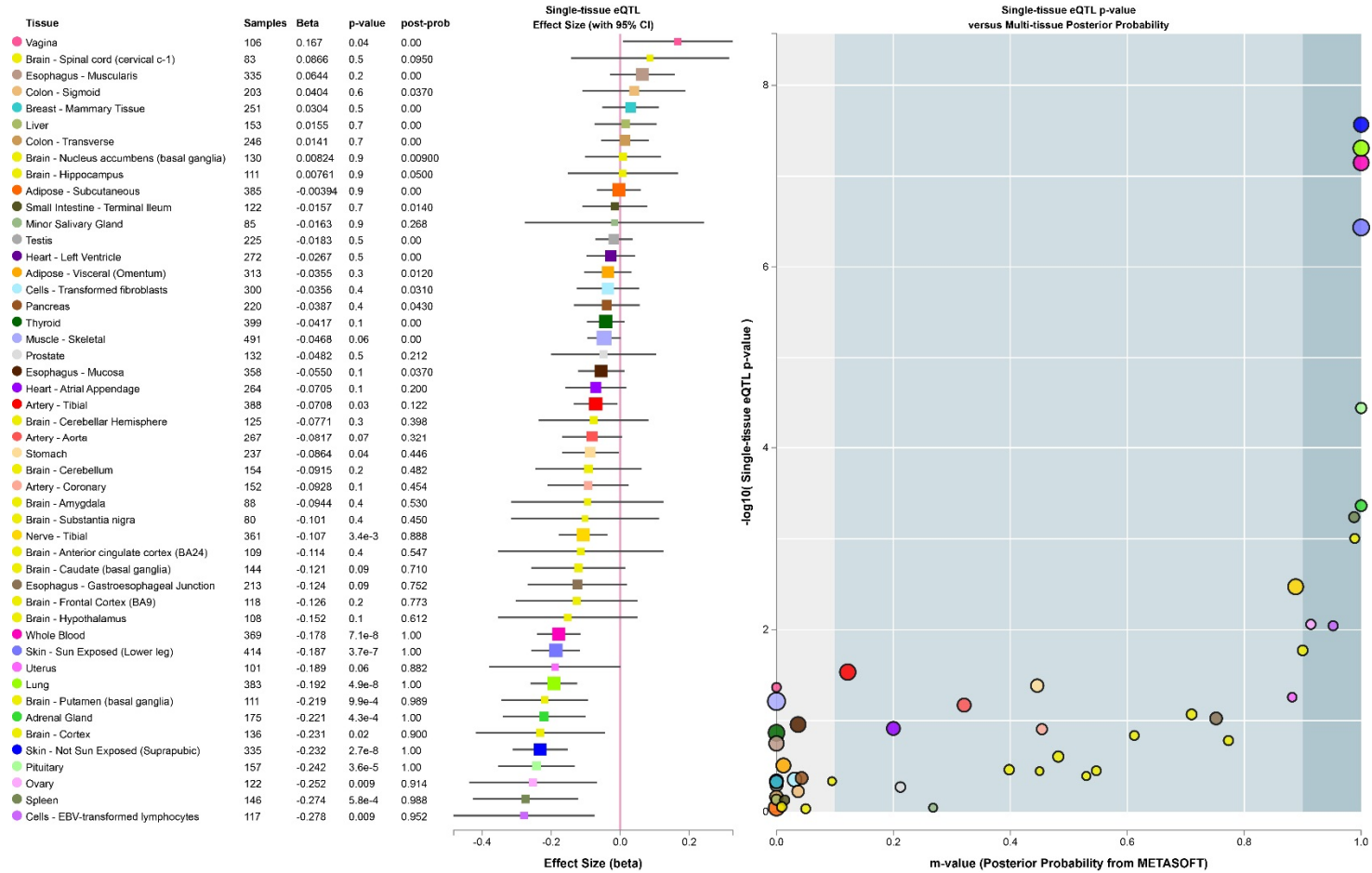
Add3



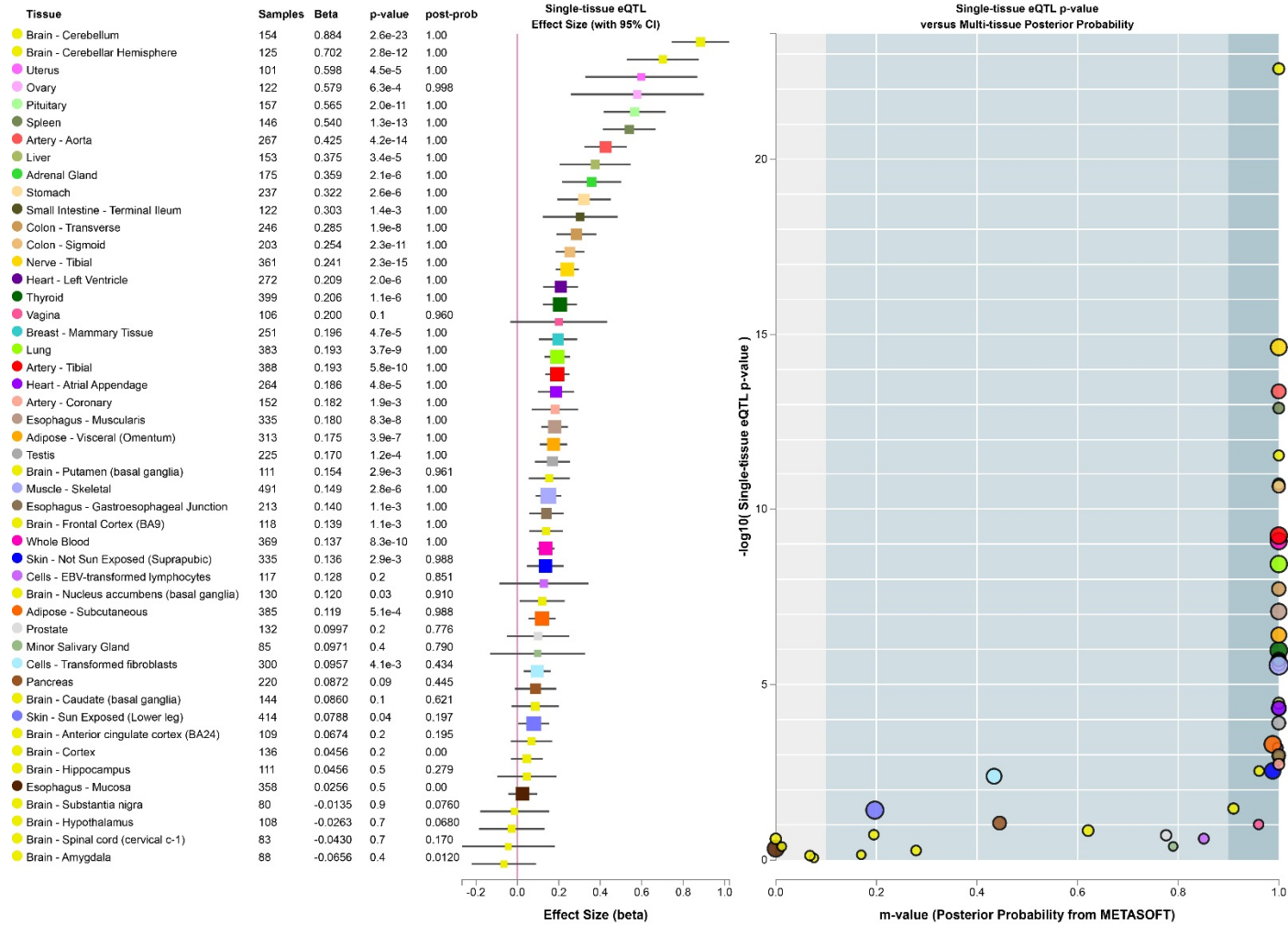
Supplementary Figure 2. SNP rs17095355 played as an expression quantitative locus (eQTL) with *ADD3* across different tissues in human, especially in Central nervous system using GTEX tool (<https://www.gtexportal.org/home/>)



Supplementary Figure 3. SNP rs10509906 played as an expression quantitative locus (eQTL) with *ADD3* across different tissues in human, especially in Central nervous system using GTEX tool (<https://www.gtexportal.org/home/>).



Supplementary Figure 4. SNP rs2501577 played as an expression quantitative locus (eQTL) with *ADD3* across different tissues in human, especially in Central nervous system using GTEX tool (<https://www.gtexportal.org/home/>).



Supplementary Table 1. Annotation of five SNP of ADD3 identified by Cheng et al using Regulome DB.

#chromosome	rsid	hits	score*
chr10	rs17095355	Chromatin_Structure DNase-seq Hrpe, Chromatin_Structure DNase-seq Werirb1, Chromatin_Structure DNase-seq H7es	5
chr10	rs2501577	Motifs PWM RUNX3, Chromatin_Structure DNase-seq Tregwb83319432	5
chr10	rs6584970	Motifs PWM RFX1, Motifs PWM Nanog, Chromatin_Structure DNase-seq Fibrobl, Chromatin_Structure DNase-seq Th2	5
chr10	rs10509906	Motifs Footprinting H1_ES Sp1, Motifs Footprinting GM12892 RREB1, Motifs Footprinting Lymphoblastoid RREB1, Motifs Footprinting K562 RREB1, Motifs Footprinting HUVEC RREB1, Motifs Footprinting GM12891 RREB1	6
chr1	rs708605	Motifs PWM FOXP1	6

score* :The smaller the annotation number of the SNP, the more likely of the SNP to be functional regulated.

Supplementary Table 2. Detailed clinical information of the subjects in this study

	Age range (Months)	Age ≤3	Age >3	Females	Males	Cystic biliary atresia (CBA)	non-CBA
Cases (n=506)	2.088±1.934	470	36	214	292	44	462
%		92.89%	7.11%	42.29%	57.71%	8.70%	91.30%
Controls (n=1473)	18.61±19.75	521	952	44	462		
		35.37%	64.63%	8.70%	91.30%		