Figure 1

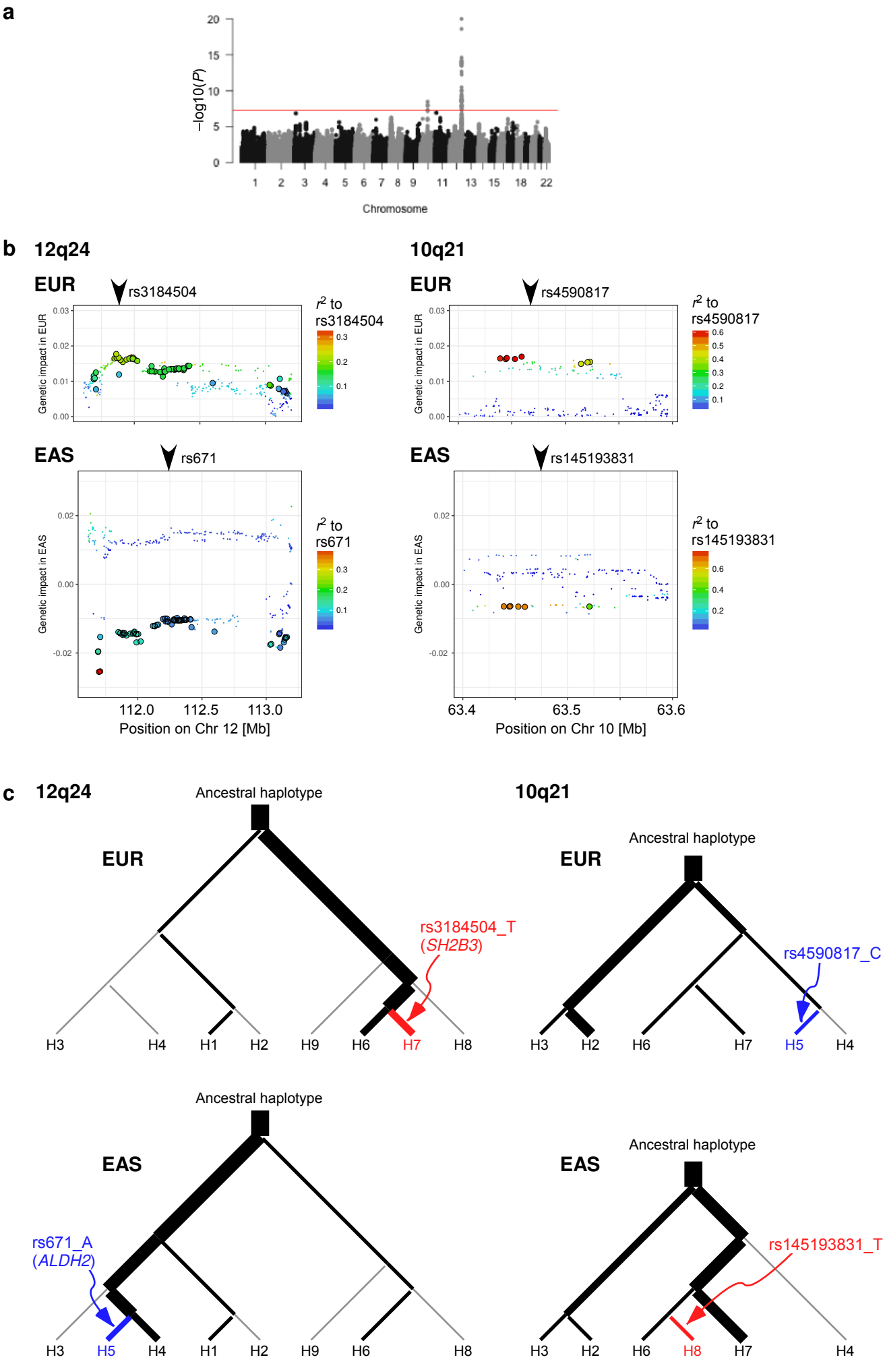

a
−log10(P)
Chromosome
b
12q24
10q21
EUR
rs3184504
rs4590817
r² to rs3184504
r² to rs4590817
Genetic impact in EUR
EAS
rs671
rs145193831
r² to rs671
r² to rs145193831
Genetic impact in EAS
Position on Chr 12 [Mb]
Position on Chr 10 [Mb]
c
12q24
10q21
Ancestral haplotype
EUR
rs3184504_T
(SH2B3)
rs4590817_C
H3
H4
H1
H2
H9
H6
H7
H8
H5
EAS
rs671_A
(ALDH2)
rs145193831_T
H8

Figure 2

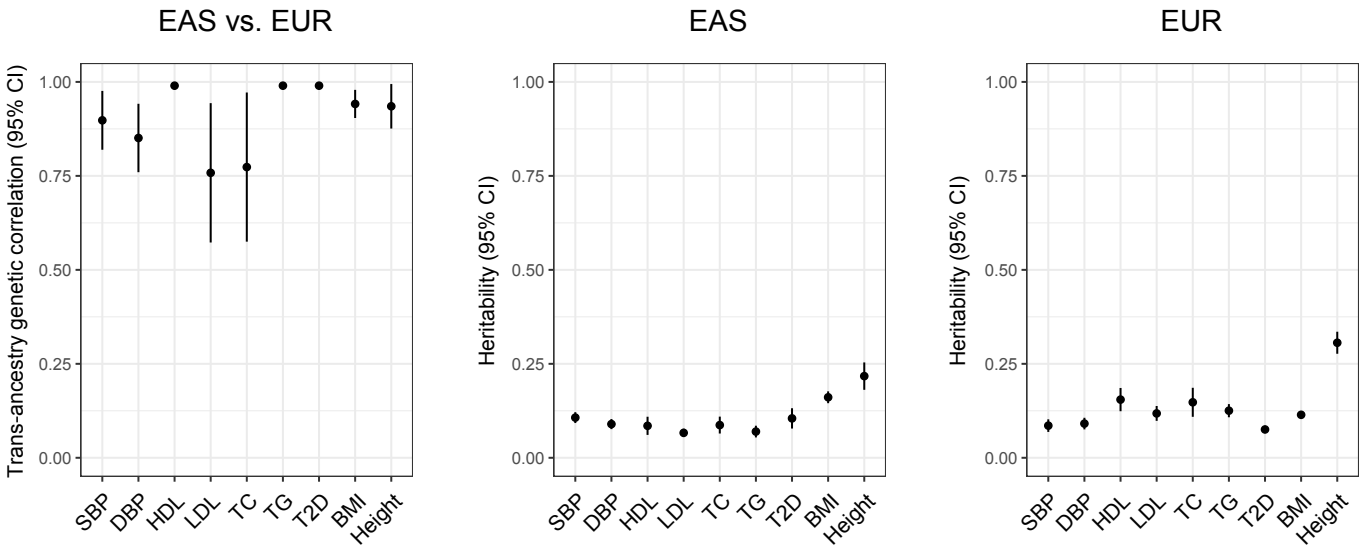
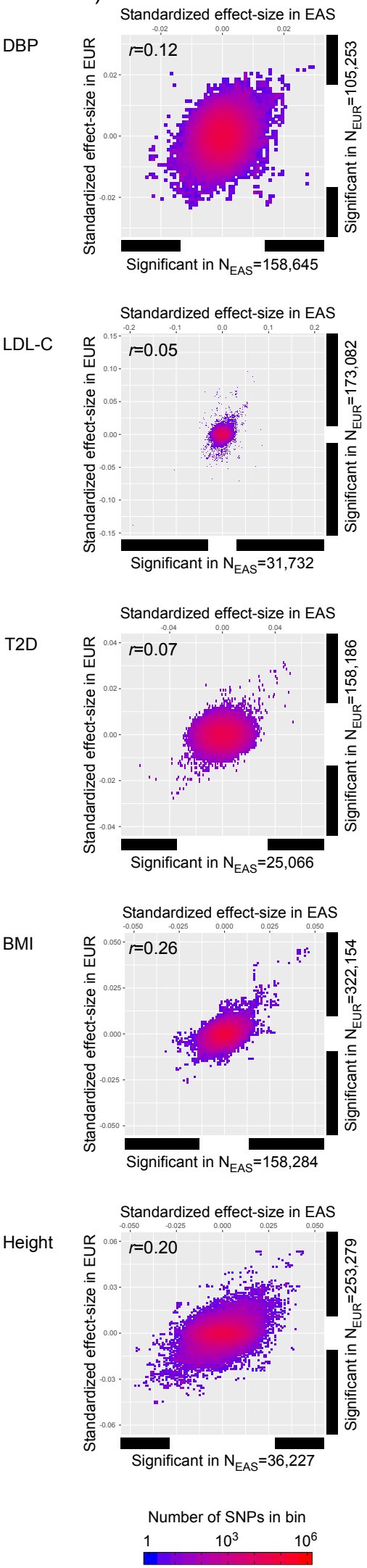

EAS vs. EUR
EAS
EUR
Trans-ancestry genetic correlation (95% CI)
Heritability (95% CI)
1.00
0.75
0.50
0.25
0.00
SBP
DBP
HDL
LDL
TC
TG
T2D
BMI
Height

Figure 3

a)



b)

DBP

Number of loci detectable in a single EUR GWAS, N_{EUR}=	Number of loci detectable in a single EAS GWAS, N_{EAS}= 100K	200K	500K
	21	59	224
100K	22	8	13	18
200K	62	13	25	45
500K	234	18	43	110

LDL-C

Number of loci detectable in a single EUR GWAS, N_{EUR}=	Number of loci detectable in a single EAS GWAS, N_{EAS}= 100K	200K	500K
	28	66	198
100K	59	17	28	43
200K	137	21	41	78
500K	383	26	55	135

T2D

Number of loci detectable in a single EUR GWAS, N_{EUR}=	Number of loci detectable in a single EAS GWAS, N_{EAS}= 100K	200K	500K
	17	56	233
100K	9	5	7	9
200K	32	9	17	27
500K	144	14	37	87

BMI

Number of loci detectable in a single EUR GWAS, N_{EUR}=	Number of loci detectable in a single EAS GWAS, N_{EAS}= 100K	200K	500K
	26	94	403
100K	13	6	9	12
200K	51	13	26	43
500K	249	21	61	155

Height

Number of loci detectable in a single EUR GWAS, N_{EUR}=	Number of loci detectable in a single EAS GWAS, N_{EAS}= 100K	200K	500K
	93	239	656
100K	153	56	95	136
200K	370	76	157	286
500K	836	90	220	525

Figure 4

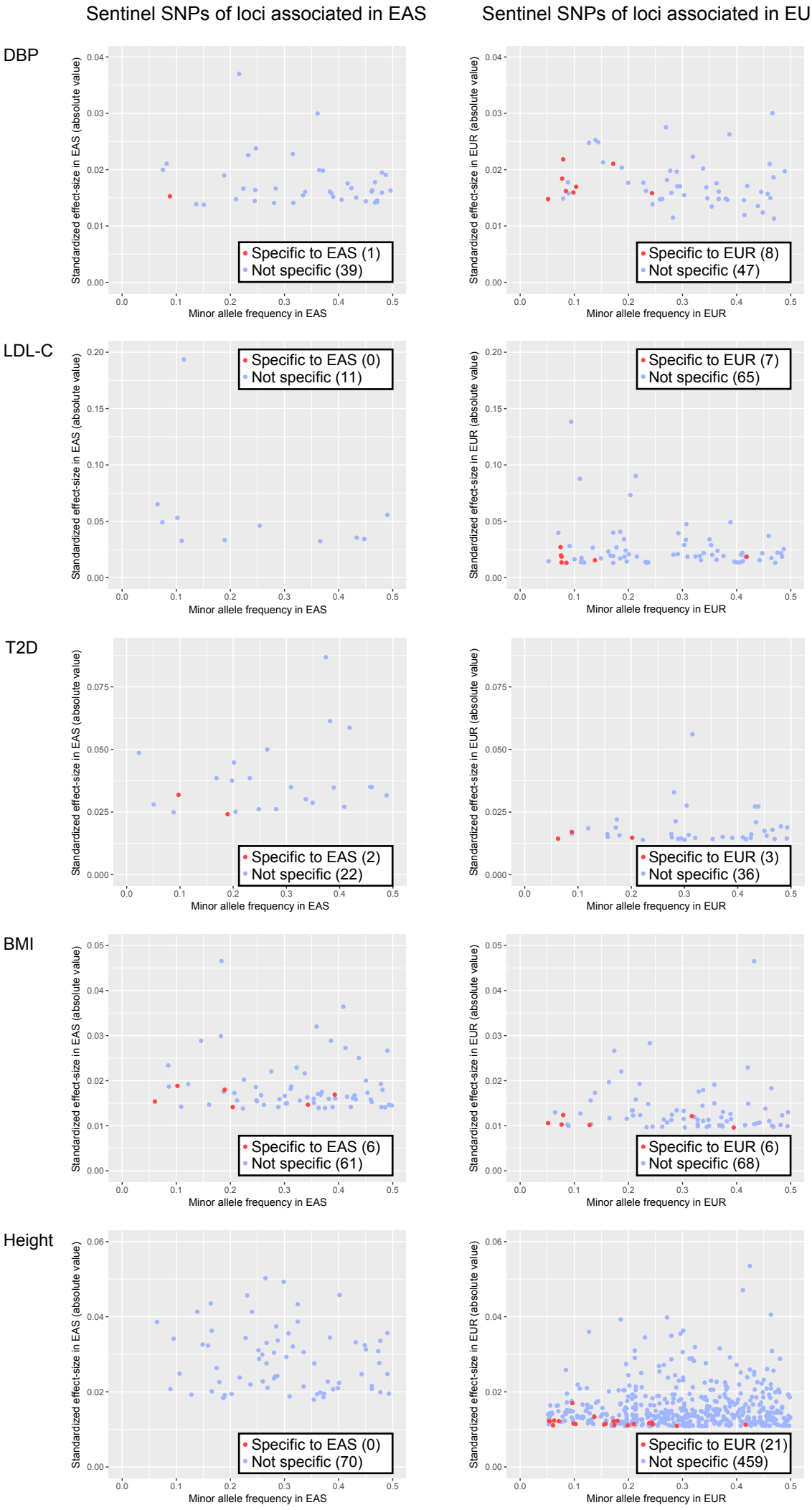
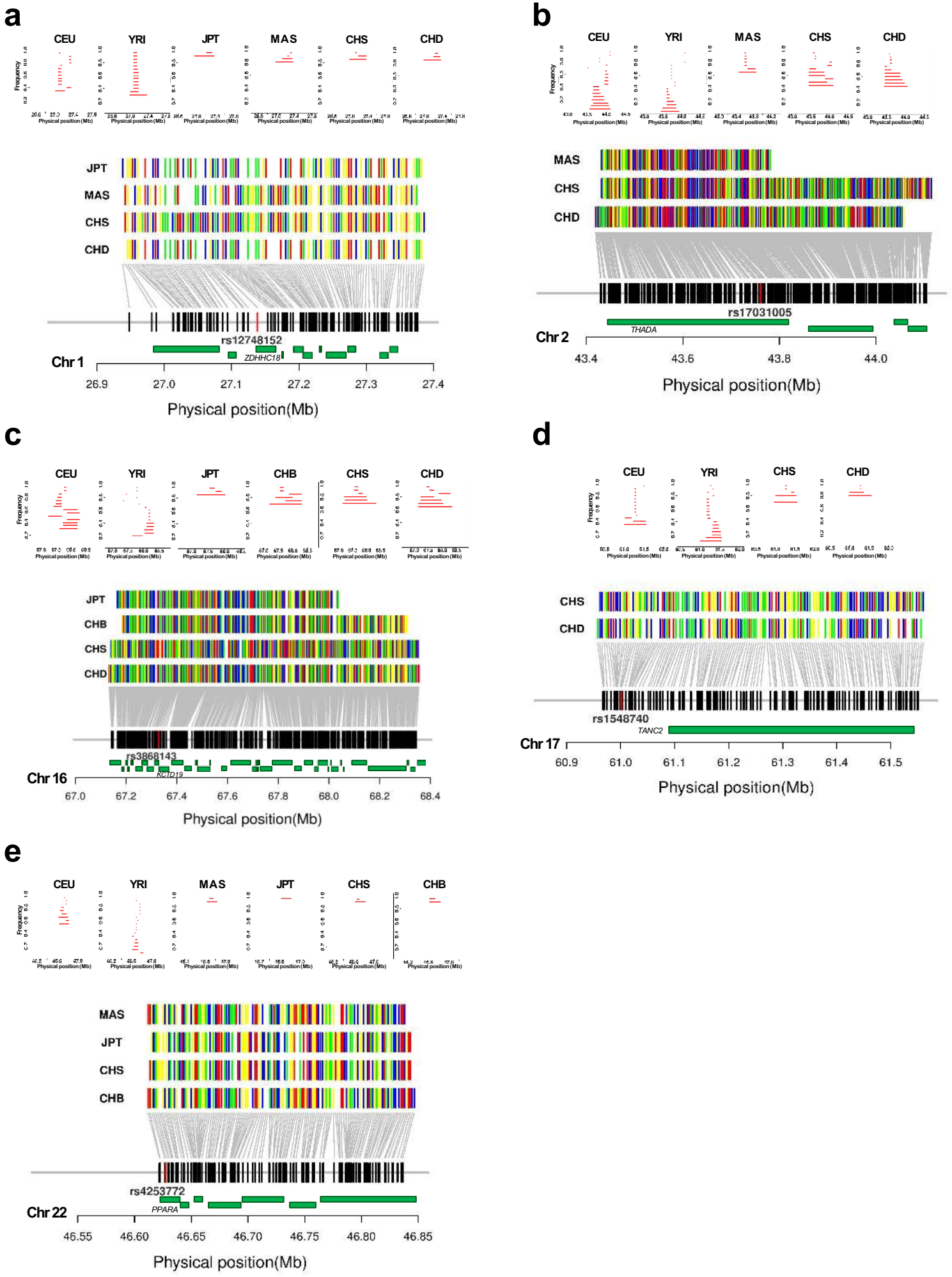

Sentinel SNPs of loci associated in EAS
Sentinel SNPs of loci associated in EUR
DBP
LDL-C
T2D
BMI
Height
Standardized effect-size in EAS (absolute value)
Standardized effect-size in EUR (absolute value)
Minor allele frequency in EAS
Minor allele frequency in EUR
Specific to EAS (1)
Not specific (39)
Specific to EUR (8)
Not specific (47)
Specific to EAS (0)
Not specific (11)
Specific to EUR (7)
Not specific (65)
Specific to EAS (2)
Not specific (22)
Specific to EUR (3)
Not specific (36)
Specific to EAS (6)
Not specific (61)
Specific to EUR (6)
Not specific (68)
Specific to EAS (0)
Not specific (70)
Specific to EUR (21)
Not specific (459)

Fig. 5


a
CEU
YRI
JPT
MAS
CHS
CHD
Frequency
JPT
MAS
CHS
CHD
rs12748152
ZDHHC18
Chr 1
26.9
27.0
27.1
27.2
27.3
27.4
Physical position(Mb)
b
CEU
YRI
MAS
CHS
CHD
Frequency
MAS
CHS
CHD
rs17031005
THADA
Chr 2
43.4
43.6
43.8
44.0
Physical position(Mb)
c
CEU
YRI
JPT
CHB
CHS
CHD
Frequency
JPT
CHB
CHS
CHD
rs3868143
KCTD19
Chr 16
67.0
67.2
67.4
67.6
67.8
68.0
68.2
68.4
Physical position(Mb)
d
CEU
YRI
CHS
CHD
Frequency
CHS
CHD
rs1548740
TANC2
Chr 17
60.9
61.0
61.1
61.2
61.3
61.4
61.5
Physical position(Mb)
e
CEU
YRI
MAS
JPT
CHS
CHB
Frequency
MAS
JPT
CHS
CHB
rs4253772
PPARA
Chr 22
46.55
46.60
46.65
46.70
46.75
46.80
46.85
Physical position(Mb)