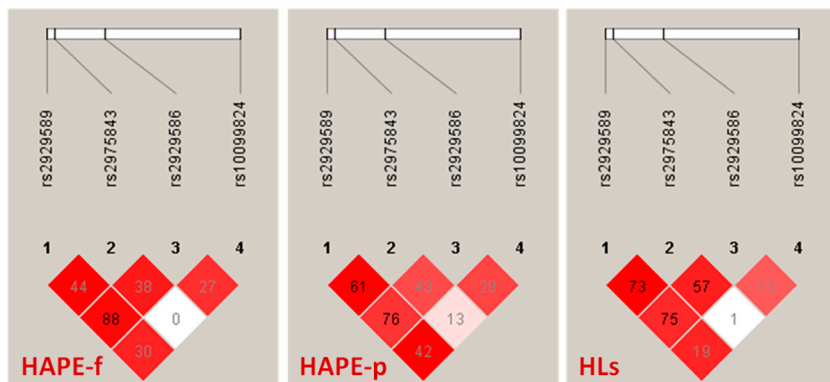
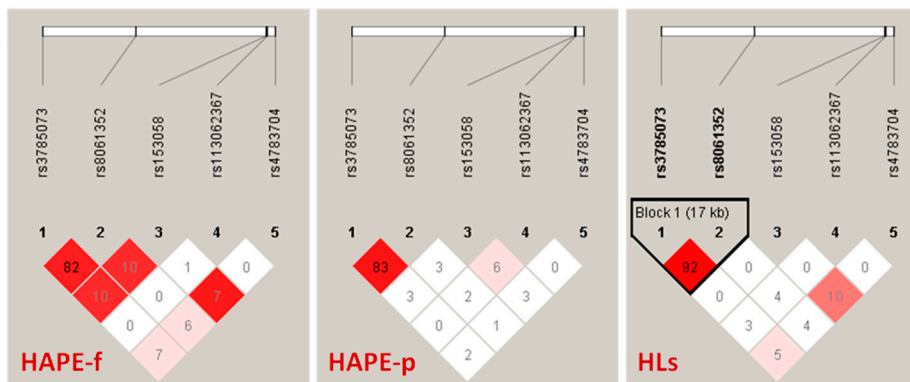
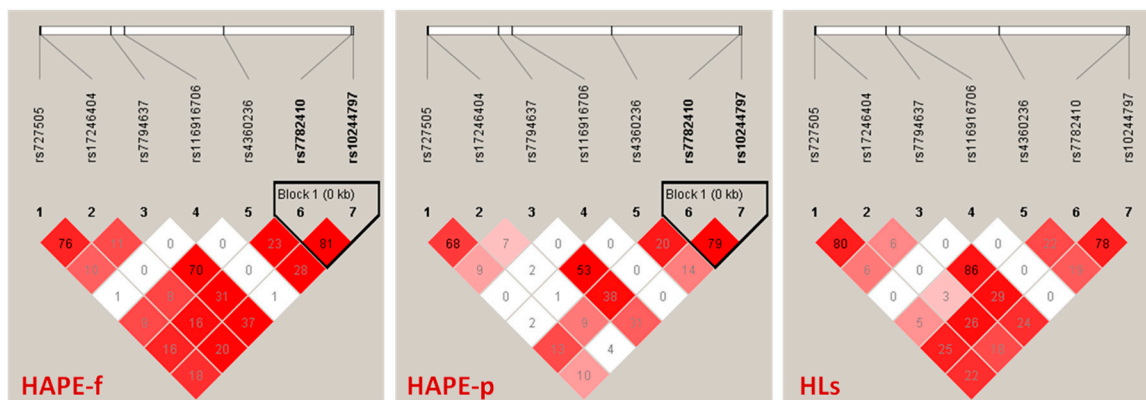
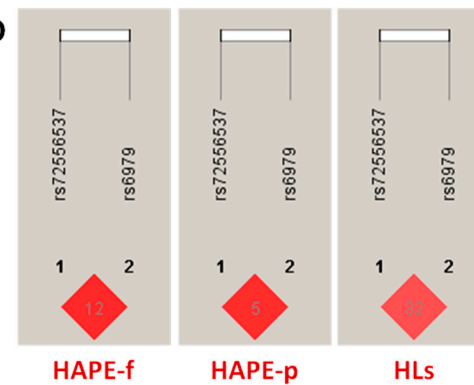
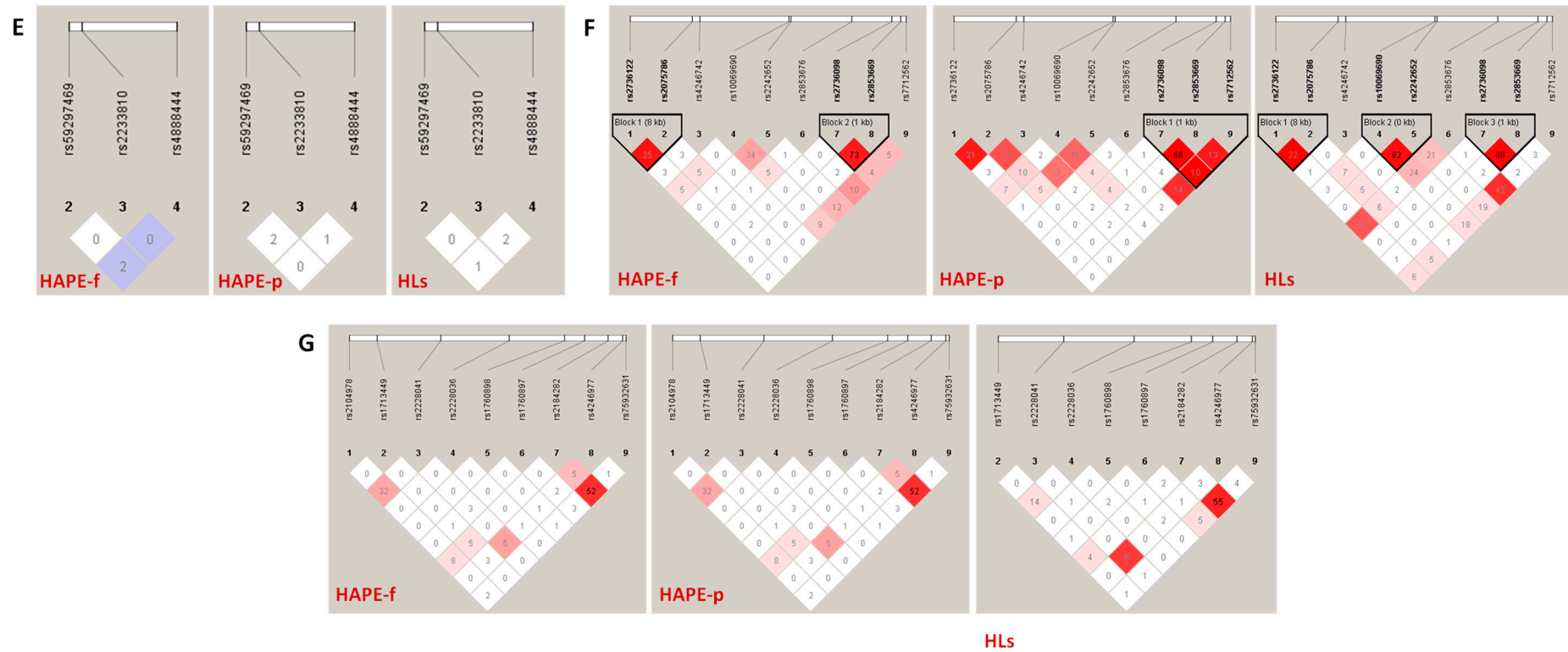


	Gene	SNP	Observed alleles	Alleles as on forward strand
Haplotype 1 <i>TERF1</i>	<i>TERF1</i>	rs2929589	C/T	G/A
		rs2975843	T/C	A/G
		rs2929586	T/C	A/G
		rs10099824	G/A	G/A
Haplotype 2 <i>POT1</i>	<i>POT1</i>	rs727505	C/T	G/A
		rs17246404	C/T	C/T
		rs7794637	C/T	C/T
		rs116916706	C/A	C/A
		rs4360236	C/T	C/T
		rs7782410	G/A	G/A
		rs10244797	T/C	T/C
Haplotype 3 <i>ACD+TERF2+TERF2IP</i>	<i>ACD</i>	rs72556537	T/A	A/T
		rs6979	G/A	G/A
	<i>TERF2</i>	rs3785073	G/A	G/A
		rs8061352	T/A	T/A
		rs153058	T/C	A/G
		rs113062367	T/C	T/C
		rs4783704	C/T	C/T
	<i>TERF2IP</i>	rs76937292	C/T	C/T
		rs59297469	G/T	G/T
		rs2233810	C/A	C/A
		rs4888444	A/G	A/G
Haplotype 4 <i>TERT</i>	<i>TERT</i>	rs2736122	C/T	G/A
		rs2075786	T/C	A/G
		rs4246742	A/T	T/A
		rs10069690	C/T	C/T
		rs2242652	C/T	G/A
		rs2853676	G/A	C/T
		rs2736098	A/G	T/C
		rs2853669	C/T	G/A
		rs7712562	G/A	G/A
Haplotype 5 <i>TEP1+HSP90AA1</i>	<i>TEP1</i>	rs2104978	A/G	T/C
		rs1713449	C/T	C/T
		rs2228041	G/A	C/T
		rs2228036	G/T	C/A
		rs1760898	C/A	G/T
		rs1760897	T/C	A/G
		rs2184282	A/G	T/C
		rs4246977	T/C	T/C
		rs75932631	T/C	T/C
	<i>HSP90AA1</i>	rs8005905	A/T	A/T

Supplementary Figure S1: Position of each SNP and allele conversion followed in the haplotypes. SNPs are arranged according to contig position.

A**B****C****D**



Supplementary Figure S2: Linkage disequilibrium plots of (A) *TERF1*, (B) *TERF2*, (C) *POT1*, (D) *ACD*, (E) *TERF2IP*, (F) *TERT*, and (G) *TEP1*. SNPs were arranged according to the contig position. Standard (D' /LOD) color scheme was kept for the LD plot. The values in the boxes represent the r^2 values. HAPE-f, HAPE-free; HAPE-p, HAPE-patients; HLs, highlanders; *TERF1*, telomeric repeat binding factor 1; *TERF2*, telomeric repeat binding factor 2; *POT1*, protection of telomere 1; *ACD*, ACD shelterin complex subunit and telomerase recruitment factor; *TERF2IP*, TERF2-interacting protein; *TERT*, telomerase reverse transcriptase; *TEP1*, telomerase associated protein 1.