**Supplementary Figure 1** Standards of the melting peaks of hybridization probes for the non-S/S and non-Z/Z genetic variants of the *SERPINA1* gene. The average melting temperatures (Tm) of the different variants were 66.1ºC (no-S), 61.8ºC (S), 58.2ºC (non-Z) and 65.7ºC (Z).

**Supplementary Figure 2** Genotyping of the Phe52/ΔPhe52 genetic variants of the *SERPINA1* gene using real-time PCR with fluorescent probes. For optimization of the assay conditions, ADNg samples from four heterozygous individuals and four homozygous for the wild-type variant were used as standards. (A) Real-time monitoring of amplification. Wild-type homozygous samples give a weaker signal. (B) Melting analysis of amplicon-probe duplexes. The resolution between the Phe52 and ΔPhe52 variants was 13.6ºC (Tm of 48.7ºC and 62.3ºC, respectively).