| Group ² | Population code | Small sample | Large sample | Pearson Correlation ³ |
|---------------------|-----------------|-----------------|-----------------|-------------------------------------|
| World mix 1 | CEU + CHB + YRI | 7 | 193 | 0.85 |
| World mix 2 | TSI + ASW + JPT | 7 | 193 | 0.86 |
| Africa | LWK | 7 | 48 | 0.88 |
| African-American | ASW | 7 | 48 | 0.88 |
| Africa | YRI | 7 | 48 | 0.89 |
| Qatar | QTR | 7 | 149 | 0.89* |
| Central America | MXL | 7 | 48 | 0.90 |
| Africa | AFR | 7 | 48 | 0.90 |
| Central America / | CLM + PUR + MXL | 7 | 193 | 0.90 |
| Caribbean | | | | |
| Central America, | AMR | 7 | 193 | 0.90 |
| Caribbean, African- | | | | |
| American | | | | |
| Caribbean | PUR | 7 | 48 | 0.90 |
| Asia | CHB | 7 | 48 | 0.91 |
| Central America / | CLM | 7 | 48 | 0.91 |
| Caribbean | | | | |
| America | CEU | 7 | 48 | 0.91 |
| Europe | FIN | 7 | 48 | 0.91 |
| Europe | GBR | 7 | 48 | 0.91 |
| Europe | TSI | 7 | 48 | 0.91 |
| Asia | JPT | 7 | 48 | 0.91 |
| Asia | CHS | 7 | 48 | 0.91 |
| Europe | FIN + TSI + GBR | 7 | 174 | 0.92 |
| Europe | EUR | 7 | 193 | 0.92 |
| Asia | ASN | 7 | 193 | 0.92 |

Table S4. Allele frequency correlation between small and large samples¹

¹ In order to compare the allele frequency between small and large samples, genotypes for 20,381 deleterious missense coding SNPs were obtained for 7 Qatari and 1,092 exomes from Europe, Asia, Africa, and the Americas (Table S3). Seven random individuals were selected from each population group the allele frequency was compared to a larger independent sample of the same group. Pearson product-moment correlation was calculated for each group.

² Groups include each population and continent from Table S2, as well as larger groups combining populations. Combinations include two "World mix" populations combining 3 Europeans, 2 Asians and 2 Africans, a mix of populations from Central America and the Caribbean (3 Colombians, 2 Puerto Ricans, and 2 Mexicans), and a mix of European populations (3 Finnish, 2 British and 2 Tuscans).

³ Pearson product-moment correlation was calculated using 20,381 SNPs for 1000G populations and using 131 Affymetrix 5.0 SNPs for the Qatari(*).