**Figure S1.** Sample raw data from the MassArray. Five different SNPs were assayed in this particular run. The top panel is for a single gene dichromat; he has only one of the two possible alleles at each position. The bottom panel shows results for a normal person with one L and one M gene. The proportion of the areas under the two peaks for the two possible “promoter” alleles provide an estimate of the percent downstream genes as plotted on the X-axis in Figure 2 of the main manuscript. The proportion of the areas under the two peaks for the two possible “309” alleles provide an estimate of the percent L genes as plotted on the Y-axis of Figure 2 of the main manuscript. This normal person is classified as having two genes total, 1L and 1 M.