Table S2: Diagnostic single nucleotide polymorphisms (SNPs) for HPV16 lineages.

Lineage	Diagnostic $SNPs^a$
$\overline{\mathrm{E}(\mathrm{p})}$	1842A, 3159C, 3249G, 3787C
E	145G, 286T, 289A, 335C, 789T, 1096C, 1366T, 1377C, 1486T, 2041C, 2220G, 2344C, 2586T, 2631T, 2860C, 3182G, 3362A, 3377C, 3516C, 3566T, 3694T, 3778G, 3858T, 4089T, 4157A, 4290T, 4437G, 4609T, 4653T, 5151G, 5573C, 5707G, 5873C, 5920T, 6174C, 6256T, 6568C, 6730G, 6863C, 6979C, 7498G, 7773C, 7795C
$\overline{\mathrm{E}(\mathrm{As})}$	24T, 178G, 846C, 3524C, 4077T, 7184C, 7186C, 7210C, 7279T, 7296C, 7851A
Af-1	3868A, 4042T, 4145T, 4317A, 4437A, 4920T, 5668C, 6577A, 7241G, 7885A
Non-E	145T, 286A, 289G, 335T, 789C, 795G, 1096G, 1366A, 1377T, 1486C, 2041T, 2220C, 2344T, 2586C, 2631A, 2860A, 3182A, 3362G, 3377G, 3516A, 3566G, 3694A, 3778T, 3858C, 4089C, 4157G, 4158A, 4176T, 4290C, 4609C, 4653A, 5151A, 5388A, 5398A, 5412C, 5504C, 5515A, 5573G, 5707A, 5873T, 5920C, 6174A, 6256C, 6568T, 6730A, 6863T, 6979T, 7069T, 7498A, 7773T, 7795T
Af-2	109C, 132T, 403G, 1416T, 3043T, 3431A, 4149C, 4169G, 4202C, 4527G, 4554G, 4863T, 5268G, 5299C, 6491C, 7444A, 7835A, 7846C, 7848G
NA1/AA/Af-2	1163A, 1200C, 1744A, 2237G, 2249A, 2262T, 2287T, 3517C, 3538C, 3706C, 3805G, 4437T, 4896G, 5496T, 6704C, 6874T, 7242C, 7494C, 7678T
NA1	1221C, 2253C, 3371C, 3413A, 3838C, 4585G, 5082T, 5161C, 5541G, 6182A, 7030T, 7236C
NA1/AA	1668G, 3224A, 4017A, 4151A, 4177T, 4461C, 4959G, 4978G, 5043T, 5295A, 5377G, 5395G, 7738C
AA2	3387C, 4608C, 5304C, 5319A, 5484A, 6812T, 7752G
AA	732C, 1041G, 2343C, 2650A, 4180A, 4201C, 4215G, 4953G, 7348T, 7404T
AA1	1006C, 1862G, 3226G, 3244C, 3416A, 3967G, 4213C, 4419G, 5296C, 6034C, 7516G

^aDiagnostic nucleotides were determined by finding the sets of nucleotides that were unique to each HPV16 lineage. The code for this process can be found in Supplementary Data S2. The results are displayed graphically in Figure 3 of the manuscript. Nucleotide positions are given relative to the HPV16 reference sequence (NCBI# NC_001526).