

Additional file 2

For the different mutations associated with the fitness models, the prevalence (percentage (%)) and absolute number (n)) of these mutations in the study population of drug naive patients are shown for the subtype B study dataset (N= 1599). Mutations indicated in bold are considered in this study as major resistance mutations.

Prevalence of protease mutations

| Mut | % | n | Mut | % | n | Mut | % | n | Mut | % | n |
|------------|-------|-----|------------|-------|-----|-----|-------|-----|------------|-------|-----|
| 10I | 10.02 | 160 | 33F | 0.13 | 2 | 57K | 14.03 | 224 | 71T | 9.58 | 153 |
| 10F | 0.5 | 8 | 33V | 6.01 | 96 | 58E | 0.44 | 7 | 71V | 7.2 | 115 |
| 10V | 2.76 | 44 | 35D | 32.31 | 516 | 60E | 9.2 | 147 | 72L | 0.31 | 5 |
| 12A | 5.57 | 89 | 35N | 0.25 | 4 | 61E | 3.51 | 56 | 72T | 4.88 | 78 |
| 12S | 4.7 | 75 | 35G | 0.13 | 2 | 61H | 0.88 | 14 | 72V | 7.58 | 121 |
| 12P | 3.69 | 59 | 36L | 1.31 | 21 | 61N | 0.56 | 9 | 72M | 1.25 | 20 |
| 13V | 17.09 | 273 | 36I | 17.72 | 283 | 62V | 32.75 | 523 | 73S | 0.13 | 2 |
| 14R | 14.4 | 230 | 36V | 0.31 | 5 | 63A | 5.57 | 89 | 74A | 0.19 | 3 |
| 15V | 19.04 | 304 | 37S | 19.16 | 306 | 63T | 6.26 | 100 | 74S | 0.5 | 8 |
| 16E | 4.01 | 64 | 37A | 2.88 | 46 | 63H | 2.63 | 42 | 77I | 32.19 | 514 |
| 17E | 0.75 | 12 | 37T | 4.38 | 70 | 63Q | 2.94 | 47 | 82A | 0.56 | 9 |
| 18H | 0.56 | 9 | 37H | 2.07 | 33 | 63C | 1.06 | 17 | 82I | 2 | 32 |
| 19T | 0.63 | 10 | 37E | 3.63 | 58 | 63V | 1 | 16 | 82F | 0.13 | 2 |
| 19Q | 1.19 | 19 | 37D | 13.84 | 221 | 63P | 58.42 | 933 | 82T | 0 | 0 |
| 19I | 9.52 | 152 | 39S | 3.38 | 54 | 63S | 0 | 0 | 84V | 0.13 | 2 |
| 19V | 1.13 | 18 | 41K | 31 | 495 | 64L | 6.83 | 109 | 85V | 0.31 | 5 |
| 19P | 0.06 | 1 | 43R | 3.94 | 63 | 64V | 14.4 | 230 | 88D | 0.19 | 3 |
| 20R | 3.44 | 55 | 43T | 0.38 | 6 | 64M | 2.19 | 35 | 88S | 0 | 0 |
| 20I | 0.13 | 2 | 45R | 2.32 | 37 | 65D | 4.76 | 76 | 89I | 0.06 | 1 |
| 20T | 0.13 | 2 | 46L | 0.88 | 14 | 66F | 0 | 0 | 89V | 0 | 0 |
| 20V | 0 | 0 | 46I | 0.44 | 7 | 69R | 0.94 | 15 | 89M | 2 | 32 |
| 20M | 0.69 | 11 | 47V | 0.06 | 1 | 69Y | 1.57 | 25 | 90M | 0.75 | 12 |
| 24I | 0.19 | 3 | 48V | 0 | 0 | 69K | 2.25 | 36 | 92R | 0.31 | 5 |
| 30N | 0.25 | 4 | 53L | 0 | 0 | 69Q | 5.01 | 80 | 92K | 1.06 | 17 |
| 32I | 0.06 | 1 | 54V | 0.5 | 8 | 70R | 1.5 | 24 | 93L | 42.45 | 678 |
| 33I | 0.75 | 12 | 55R | 0.63 | 10 | 71I | 0.19 | 3 | 95F | 0 | 0 |

Prevalence of reverse transcriptase mutations

| Mut | % | n | Mut | % | n | Mut | % | n | Mut | % | n |
|------------|-------|-----|-------------|-------|------|-------------|-------|-----|-------------|-------|-----|
| 6D | 6.01 | 96 | 69N | 0.63 | 10 | 135L | 1.44 | 23 | 190A | 0.25 | 4 |
| 11T | 1.13 | 18 | 69D | 0.25 | 4 | 135T | 33 | 527 | 196E | 14.78 | 236 |
| 20R | 9.89 | 158 | 70R | 0.5 | 8 | 135V | 6.7 | 107 | 200A | 19.91 | 318 |
| 21I | 1.94 | 31 | 74I | 0.06 | 1 | 138A | 2.69 | 43 | 200E | 2 | 32 |
| 28K | 0.94 | 15 | 74V | 0.06 | 1 | 142T | 4.2 | 67 | 200I | 9.77 | 156 |
| 35L | 1.82 | 29 | 83K | 20.41 | 326 | 142V | 9.33 | 149 | 202V | 10.46 | 167 |
| 35T | 5.95 | 95 | 90I | 2.19 | 35 | 151M | 0.19 | 3 | 203D | 1.06 | 17 |
| 35M | 3.51 | 56 | 98G | 0.19 | 3 | 158S | 2.5 | 40 | 203K | 0.13 | 2 |
| 35I | 13.71 | 219 | 98S | 8.02 | 128 | 162C | 19.04 | 304 | 207D | 2.5 | 40 |
| 36A | 1.13 | 18 | 100I | 0.06 | 1 | 162Y | 3.76 | 60 | 207G | 0.69 | 11 |
| 39A | 5.07 | 81 | 101Q | 1 | 16 | 162A | 5.7 | 91 | 207A | 2.07 | 33 |
| 39E | 0.13 | 2 | 101E | 0.19 | 3 | 165I | 5.01 | 80 | 207E | 15.72 | 251 |
| 39K | 0.63 | 10 | 102Q | 3.63 | 58 | 166R | 9.46 | 151 | 207K | 3.57 | 57 |
| 40D | 1.69 | 27 | 102R | 2.07 | 33 | 169D | 6.95 | 111 | 208Y | 0.38 | 6 |
| 41L | 1.63 | 26 | 103N | 1.57 | 25 | 173T | 0.38 | 6 | 210W | 0.38 | 6 |
| 43Q | 0.06 | 1 | 103R | 1.31 | 21 | 173A | 0.13 | 2 | 211R | 39.82 | 636 |
| 43E | 0.31 | 5 | 104R | 2.13 | 34 | 173S | 0.06 | 1 | 211S | 2 | 32 |
| 43R | 0.56 | 9 | 106I | 2.44 | 39 | 173I | 0.06 | 1 | 214L | 15.84 | 253 |
| 44D | 0.19 | 3 | 108I | 0.69 | 11 | 173R | 2.13 | 34 | 215F | 0.19 | 3 |
| 48T | 2.44 | 39 | 118I | 2.63 | 42 | 174R | 1.75 | 28 | 215Y | 0.25 | 4 |
| 49R | 7.08 | 113 | 121Y | 2.44 | 39 | 174K | 2.19 | 35 | 215S | 1.06 | 17 |
| 60I | 15.09 | 241 | 121H | 3.94 | 63 | 177E | 21.29 | 340 | 218E | 0 | 0 |
| 62V | 0.38 | 6 | 122P | 3.38 | 54 | 178M | 8.58 | 137 | 219N | 0.06 | 1 |
| 64R | 2 | 32 | 122K | 68.94 | 1101 | 178L | 7.2 | 115 | 219Q | 0.63 | 10 |
| 65R | 0.06 | 1 | 123G | 1.5 | 24 | 179I | 3.32 | 53 | 219E | 0 | 0 |
| 67G | 0.06 | 1 | 123N | 4.51 | 72 | 181C | 0.44 | 7 | 221Y | 0.13 | 2 |
| 67N | 0.38 | 6 | 123E | 27.11 | 433 | 184V | 0.25 | 4 | 228R | 0.06 | 1 |
| 68G | 5.32 | 85 | 123S | 1.69 | 27 | 188L | 0.06 | 1 | 228H | 0.5 | 8 |