**Table EV1**

**List of recurrently mutated genes**

The list includes all genes that are mutated more than once, with different mutations, in at least two populations. See Material and Methods for details.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Genotype | population | chromosome | position | mutation | gene | frequency | protein\_change |
| WT | A1 | chrVII | 956132 | A | PHO81 | 0,203 | L693F |
| WT | B1 | chrVII | 957307 | A | PHO81 | 0,822 | K302\* |
| WT | C1 | chrVI | 225055 | C | PHO4 | 0,183 | Y302D |
| WT | C1 | chrVI | 225186 | A | PHO4 | 0,039 | A258V |
| WT | C1 | chrVI | 225687 | T | PHO4 | 0,173 | W91\* |
| WT | D1 | chrVII | 956137 | G | PHO81 | 0,288 | A692P |
| WT | E1 | chrVI | 225091 | T | PHO4 | 0,015 | P290T |
| WT | E1 | chrVII | 956319 | T | PHO81 | 0,044 | 631fs |
| WT | G1 | chrVI | 225204 | G | PHO4 | 0,053 | R252P |
| tub2-401 | A4 | chrVI | 56989 | G | TUB2 | 0,02 | N218K |
| tub2-401 | A4 | chrVI | 56992 | C | TUB2 | 0,067 | Q219H |
| tub2-401 | A4 | chrVII | 86811 | G | KIP3 | 0,111 | S643A |
| tub2-401 | A4 | chrXIII | 98549 | A | TUB1 | 0,289 | D246Y |
| tub2-401 | A4 | chrVII | 85514 | G | KIP3 | 0,238 | 210:211fs |
| tub2-401 | B4 | chrVI | 56992 | T | TUB2 | 0,985 | Q219H |
| tub2-401 | D4 | chrVII | 85357 | A | KIP3 | 0,545 | L158\* |
| tub2-401 | D4 | chrVII | 85485 | C | KIP3 | 0,192 | T201P |
| tub2-401 | E4 | chrVI | 56477 | G | TUB2 | 0,38 | N48D |
| tub2-401 | E4 | chrVII | 85758 | A | KIP3 | 0,072 | G292R |
| tub2-401 | E4 | chrXIII | 98167 | C | TUB1 | 0,075 | D373G |
| tub2-401 | F4 | chrVI | 56361 | T | TUB2 | 0,148 | T9I |
| tub2-401 | F4 | chrVI | 57020 | A | TUB2 | 0,405 | V229I |
| tub2-401 | F4 | chrVII | 86376 | T | KIP3 | 0,188 | E498\* |
| tub2-401 | G4 | chrVI | 57020 | A | TUB2 | 0,367 | V229I |
| tub2-401 | G4 | chrXIII | 98012 | T | TUB1 | 0,512 | D425N |
| tub2-401 | H4 | chrVI | 57061 | G | TUB2 | 0,78 | C242W |
| tub2-401 | A5 | chrXIII | 98549 | A | TUB1 | 0,436 | D246Y |
| tub2-401 | A5 | chrXIII | 98605 | A | TUB1 | 0,111 | N227I |
| tub2-401 | B5 | chrVII | 85591 | A | KIP3 | 0,139 | L236Q |
| tub2-401 | B5 | chrXIII | 98296 | G | TUB1 | 0,346 | Q330P |
| tub2-401 | B5 | chrXIII | 98909 | C | TUB1 | 0,137 | L126V |
| tub2-401 | C5 | chrVII | 85959 | A | KIP3 | 0,367 | E359K |
| tub2-401 | C5 | chrXIII | 98549 | A | TUB1 | 0,371 | D246Y |
| tub2-401 | D5 | chrVI | 56992 | T | TUB2 | 0,964 | Q219H |
| tub2-401 | E5 | chrXIII | 98698 | C | TUB1 | 0,676 | L196W |
| tub2-401 | F5 | chrVII | 85588 | A | KIP3 | 0,205 | S235\* |
| tub2-401 | F5 | chrXII | 566248 | C | TUB4 | 0,75 | Q12E |
| tub2-401 | G5 | chrVII | 85426 | A | KIP3 | 0,861 | L181\* |
| tub2-401 | H5 | chrVI | 56992 | T | TUB2 | 0,598 | Q219H |
| tub2-401 | H5 | chrVII | 86150 | G | KIP3 | 0,05 | Y422\* |
| tub2-401 | H5 | chrVII | 86741 | T | KIP3 | 0,06 | L619F |
| tub2-401 | H5 | chrXIII | 98563 | A | TUB1 | 0,064 | A241V |
| tub2-401 | H5 | chrXIV | 387968 | A | SPC98 | 0,059 | P248T |
| tub2-401 | A6 | chrXIII | 98549 | A | TUB1 | 0,228 | D246Y |
| tub2-401 | A6 | chrXIV | 387891 | C | SPC98 | 0,463 | H222P |
| tub2-401 | B6 | chrVI | 57048 | T | TUB2 | 0,5 | T238I |
| tub2-401 | C6 | chrVII | 85959 | A | KIP3 | 0,19 | E359K |
| tub2-401 | C6 | chrXIII | 98176 | A | TUB1 | 0,553 | A370V |
| tub2-401 | C6 | chrXIII | 98549 | A | TUB1 | 0,188 | D246Y |
| tub2-401 | D6 | chrVI | 56477 | G | TUB2 | 0,061 | N48D |
| tub2-401 | D6 | chrVI | 56992 | T | TUB2 |  | Q219H |
| tub2-401 | D6 | chrVII | 85344 | C | KIP3 |  | V154L |
| tub2-401 | D6 | chrXIII | 98017 | T | TUB1 |  | R423K |
| tub2-401 | E6 | chrVI | 57305 | C | TUB2 |  | K324Q |
| tub2-401 | E6 | chrXIII | 98698 | C | TUB1 |  | L196W |
| tub2-401 | F6 | chrVII | 86172 | T | KIP3 |  | K430\* |
| tub2-401 | F6 | chrXII | 566248 | C | TUB4 |  | Q12E |
| tub2-401 | F6 | chrXIII | 98084 | G | TUB1 |  | A401P |
| tub2-401 | G6 | chrVI | 56992 | T | TUB2 |  | Q219H |
| tub2-401 | G6 | chrXIII | 97982 | T | TUB1 |  | E435K |
| tub2-401 | H6 | chrXIII | 97982 | T | TUB1 |  | E435K |