

Supplemental Table 1. Sensitivity of mutant strains to added CaCl₂ (experiment A)

| EXP | LINE | Strain Names | | Genotypes and Conditions [a] | | | | | | CV [b] | | IC50 [c] | | Performance Factor [d] | | | | | |
|-----|------|------------------|----------------------|------------------------------|------|------|------|-----|------|--------|----|----------|------|------------------------|------|------|------|------|------|
| | | MAT ^a | MAT ^{alpha} | PMC1 | VCX1 | GDT1 | CRZ1 | CN | CMK2 | ERD1 | % | mM | PMC1 | VCX1 | GDT1 | CRZ1 | CN | CMK2 | ERD1 |
| A | 1 | K1849 | K1850 | Δ | | | | | | | 3 | 52 | 0.3 | 0.2 | -0.1 | -3.1 | -0.3 | | |
| A | 2 | K1851 | K1852 | Δ | | | Δ | | | | 7 | 55 | 0.9 | 0.3 | | -3.2 | -0.6 | | |
| A | 3 | K1857 | K1858 | Δ | | | Δ | | | | 0 | 46 | 0.6 | | 0.1 | -1.0 | 0.1 | | |
| A | 4 | K1859 | K1860 | Δ | | | Δ | Δ | | | 11 | 44 | | 0.9 | | | -0.9 | -0.4 | |
| A | 5 | K1865 | K1866 | Δ | Δ | Δ | | | | | 0 | 43 | | 0.6 | 0.5 | 0.3 | 0.1 | | |
| A | 6 | K1867 | K1868 | Δ | Δ | Δ | | Δ | | | 7 | 30 | | 0.4 | | 0.3 | 0.4 | | |
| A | 7 | K1873 | K1874 | Δ | Δ | Δ | | | | | 12 | 30 | | 0.4 | 0.6 | -0.2 | | | |
| A | 8 | K1875 | K1876 | Δ | Δ | Δ | Δ | | | | 5 | 23 | | | 0.9 | 0.1 | | | |
| A | 9 | K1849 | K1850 | Δ | | | | | +FK | | 2 | 464 | | 3.8 | 2.4 | -0.1 | | 0.2 | |
| A | 10 | K1851 | K1852 | Δ | | | | Δ | +FK | | 1 | 511 | | 4.3 | 2.6 | | | 0.6 | |
| A | 11 | K1857 | K1858 | Δ | | | Δ | | +FK | | 3 | 90 | | 2.2 | | | 0.1 | 0.1 | |
| A | 12 | K1859 | K1860 | Δ | | | Δ | Δ | +FK | | 1 | 84 | | 2.7 | | | 0.4 | | |
| A | 13 | K1865 | K1866 | Δ | Δ | | | | +FK | | 9 | 34 | | | 0.8 | 0.4 | | 0.9 | |
| A | 14 | K1867 | K1868 | Δ | Δ | Δ | | | +FK | | 7 | 25 | | | 1.0 | | | 1.3 | |
| A | 15 | K1873 | K1874 | Δ | Δ | Δ | | | +FK | | 32 | 19 | | | | 0.6 | | 0.7 | |
| A | 16 | K1875 | K1876 | Δ | Δ | Δ | Δ | | +FK | | 4 | 13 | | | | | | 1.0 | |
| A | 17 | K1853 | K1854 | Δ | | | | | | Δ | 4 | 63 | | 0.6 | 0.5 | -0.4 | -2.7 | | |
| A | 18 | K1855 | K1856 | Δ | | | Δ | | | Δ | 14 | 84 | | 1.8 | 0.5 | | -2.0 | | |
| A | 19 | K1861 | K1862 | Δ | | | Δ | | | Δ | 19 | 43 | | 0.3 | | -0.4 | -0.9 | | |
| A | 20 | K1863 | K1864 | Δ | | | Δ | Δ | | Δ | 6 | 57 | | 1.4 | | | -0.1 | | |
| A | 21 | K1869 | K1870 | Δ | Δ | | | | | Δ | 2 | 41 | | | 0.2 | 0.8 | 1.2 | | |
| A | 22 | K1871 | K1872 | Δ | Δ | Δ | | | | Δ | 1 | 23 | | | 0.1 | | 1.2 | | |
| A | 23 | K1877 | K1878 | Δ | Δ | Δ | | | | Δ | 4 | 35 | | | 0.7 | 1.6 | | | |
| A | 24 | K1879 | K1880 | Δ | Δ | Δ | Δ | | | Δ | 4 | 21 | | | | | 1.8 | | |
| A | 25 | K1853 | K1854 | Δ | | | | | +FK | Δ | 0 | 403 | | 4.5 | 2.3 | 0.2 | | | |
| A | 26 | K1855 | K1856 | Δ | | | | Δ | +FK | Δ | 1 | 343 | | 5.1 | 2.5 | | | | |
| A | 27 | K1861 | K1862 | Δ | | | Δ | | +FK | Δ | 1 | 82 | | 2.8 | | 0.4 | | | |
| A | 28 | K1863 | K1864 | Δ | | | Δ | Δ | +FK | Δ | 15 | 62 | | 3.3 | | | | | |
| A | 29 | K1869 | K1870 | Δ | Δ | | | | +FK | Δ | 26 | 18 | | | 0.6 | 0.8 | | | |
| A | 30 | K1871 | K1872 | Δ | Δ | Δ | | | +FK | Δ | 7 | 10 | | | 0.7 | | | | |
| A | 31 | K1877 | K1878 | Δ | Δ | Δ | | | +FK | Δ | 14 | 12 | | | | 0.9 | | | |
| A | 32 | K1879 | K1880 | Δ | Δ | Δ | Δ | | +FK | Δ | 16 | 6 | | | | | | | |
| A | 33 | K1833 | K1834 | | | | | | | | 16 | 178 | 1.8 | | 0.7 | 1.1 | -1.8 | -0.1 | |
| A | 34 | K1835 | K1836 | | | | Δ | | | | 17 | 81 | 0.6 | | 0.1 | | -2.8 | -0.5 | |
| A | 35 | K1841 | K1842 | | | Δ | | | | | 6 | 107 | 1.2 | | | 0.5 | -0.1 | 0.0 | |
| A | 36 | K1843 | K1844 | | | Δ | Δ | | | | 25 | 75 | 0.8 | | | -0.4 | -0.4 | | |
| A | 37 | K1833 | K1834 | | | | | +FK | | | 6 | 635 | 0.5 | | 2.5 | 0.2 | | 0.3 | |
| A | 38 | K1835 | K1836 | | | | Δ | +FK | | | 4 | 563 | 0.1 | | 2.5 | | | 0.5 | |
| A | 39 | K1841 | K1842 | | | Δ | | +FK | | | 9 | 113 | 0.3 | | | 0.2 | | 0.3 | |
| A | 40 | K1843 | K1844 | | | Δ | Δ | +FK | | | 12 | 97 | 0.2 | | | | | 0.4 | |
| A | 41 | K1837 | K1838 | | | | | | | Δ | 16 | 195 | 1.6 | | 0.9 | 0.8 | -1.4 | | |
| A | 42 | K1839 | K1840 | | | | Δ | | | Δ | 12 | 112 | 0.4 | | 0.2 | | -1.8 | | |
| A | 43 | K1845 | K1846 | | | Δ | | | | Δ | 29 | 103 | 1.3 | | | 0.1 | 0.1 | | |
| A | 44 | K1847 | K1848 | | | Δ | Δ | | | Δ | 6 | 95 | 0.7 | | | | 0.4 | | |
| A | 45 | K1837 | K1838 | | | | | +FK | Δ | | 5 | 498 | 0.3 | | 2.4 | 0.3 | | | |
| A | 46 | K1839 | K1840 | | | | Δ | +FK | Δ | | 1 | 403 | 0.2 | | 2.5 | | | | |
| A | 47 | K1845 | K1846 | | | Δ | | +FK | Δ | | 13 | 94 | 0.2 | | | 0.4 | | | |
| A | 48 | K1847 | K1848 | | | Δ | Δ | +FK | Δ | | 32 | 73 | 0.2 | | | | | | |

Footnotes

- [a] addition of 0.2 µg/mL FK506
- [b] coefficient of variation between two strains (in %) or one strain (*)
- [c] normalized average of IC50 from two strains (in mM CaCl₂)
- [d] PF = log base 2 of (IC50 WT strain/IC50 Δ strain)

Supplemental Table 1. Sensitivity of mutant strains to added CaCl₂ (experiment B)

| EXP | LINE | Strain Names | | | | | | | Genotypes and Conditions [a] | | | | | | | CV [b] | IC50 [c] | Performance Factor [d] | | | | | | |
|-----|------|------------------|----------------------|------|------|------|------|-----|------------------------------|------|-----|-----|------|------|------|--------|----------|------------------------|------|------|--|--|--|--|
| | | MAT _a | MAT _{alpha} | PMC1 | VCX1 | GDT1 | CRZ1 | CN | CMK2 | ERD1 | % | mM | PMC1 | VCX1 | GDT1 | CRZ1 | CN | CMK2 | ERD1 | | | | | |
| B | 1 | NS122 | NS123 | Δ | | | | | | | 2 | 56 | 0.1 | 0.0 | -0.6 | -2.6 | | | -0.1 | | | | | |
| B | 2 | NS132 | NS133 | Δ | | | Δ | | | | 1 | 84 | 1.9 | 0.6 | | | -2.1 | | -0.1 | | | | | |
| B | 3 | NS136 | NS137 | Δ | | | Δ | | | | 4 | 57 | 0.8 | | 0.0 | -0.4 | | | -0.1 | | | | | |
| B | 4 | NS144 | NS145 | Δ | | | Δ | Δ | | | 12 | 56 | 1.5 | | | | -0.3 | | 0.0 | | | | | |
| B | 5 | NS154 | NS155 | Δ | Δ | | | | | | 0 | 52 | | | 0.6 | 1.2 | 1.1 | | -0.1 | | | | | |
| B | 6 | NS164 | NS165 | Δ | Δ | | Δ | | | | 4 | 22 | | | 0.1 | | 0.1 | | -0.7 | | | | | |
| B | 7 | NS168 | NS169 | Δ | Δ | Δ | | | | | 1 | 33 | | | 0.7 | 1.3 | | | -0.2 | | | | | |
| B | 8 | NS176 | NS177 | Δ | Δ | Δ | Δ | | | * | 20 | | | | | 0.7 | | 0.7 | | -0.2 | | | | |
| B | 9 | NS122 | NS123 | Δ | | | | +FK | | | 1 | 348 | 3.9 | 2.2 | 0.0 | | | | | 0.7 | | | | |
| B | 10 | NS132 | NS133 | Δ | | | Δ | +FK | | | 0 | 347 | 4.1 | 2.3 | | | | | | 0.7 | | | | |
| B | 11 | NS136 | NS137 | Δ | | | Δ | +FK | | | 5 | 73 | 2.4 | | | 0.0 | | | | 0.9 | | | | |
| B | 12 | NS144 | NS145 | Δ | | | Δ | +FK | | | 11 | 71 | 2.5 | | | | | | | 0.9 | | | | |
| B | 13 | NS154 | NS155 | Δ | Δ | | | +FK | | | 5 | 23 | | | 0.8 | 0.2 | | | -0.7 | | | | | |
| B | 14 | NS164 | NS165 | Δ | Δ | | Δ | +FK | | | 6 | 20 | | | 0.7 | | | | -0.4 | | | | | |
| B | 15 | NS168 | NS169 | Δ | Δ | Δ | | +FK | | | 0 | 14 | | | | 0.2 | | | | 0.0 | | | | |
| B | 16 | NS176 | NS177 | Δ | Δ | Δ | Δ | +FK | | * | 12 | | | | | | | | | 0.1 | | | | |
| B | 17 | NS128 | NS129 | Δ | | | | | | Δ | 1 | 61 | 0.1 | 0.0 | -0.5 | -1.8 | | | | | | | | |
| B | 18 | NS138 | NS139 | Δ | | | Δ | | | Δ | 0 | 88 | 1.3 | 0.7 | | -1.3 | | | | | | | | |
| B | 19 | NS140 | NS141 | Δ | | | Δ | | | Δ | 4 | 59 | 0.7 | | 0.1 | 0.6 | | | | | | | | |
| B | 20 | NS146 | NS147 | Δ | | | Δ | Δ | | Δ | 1 | 56 | 1.3 | | | 0.5 | | | | | | | | |
| B | 21 | NS160 | NS161 | Δ | Δ | | | | | Δ | 1 | 56 | | | 0.6 | 0.6 | 0.5 | | | | | | | |
| B | 22 | NS170 | NS171 | Δ | Δ | | Δ | | | Δ | 0 | 37 | | | 0.7 | | 0.5 | | | | | | | |
| B | 23 | NS172 | NS173 | Δ | Δ | Δ | | | | Δ | 8 | 37 | | | 0.7 | 1.4 | | | | | | | | |
| B | 24 | NS178 | NS179 | Δ | Δ | Δ | Δ | | | Δ | 6 | 23 | | | | 1.0 | | | | | | | | |
| B | 25 | NS128 | NS129 | Δ | | | | +FK | | Δ | 1 | 210 | 2.4 | 2.5 | 0.0 | | | | | | | | | |
| B | 26 | NS138 | NS139 | Δ | | | Δ | +FK | | Δ | 7 | 213 | 3.0 | 2.5 | | | | | | | | | | |
| B | 27 | NS140 | NS141 | Δ | | | Δ | +FK | | Δ | 1 | 38 | 1.4 | | | 0.0 | | | | | | | | |
| B | 28 | NS146 | NS147 | Δ | | | Δ | Δ | +FK | Δ | 1 | 38 | 1.7 | | | | | | | | | | | |
| B | 29 | NS160 | NS161 | Δ | Δ | | | +FK | | Δ | 0 | 39 | | | 1.5 | 0.6 | | | | | | | | |
| B | 30 | NS170 | NS171 | Δ | Δ | | Δ | +FK | | Δ | 2 | 26 | | | 1.2 | | | | | | | | | |
| B | 31 | NS172 | NS173 | Δ | Δ | Δ | | +FK | | Δ | 16 | 14 | | | | 0.3 | | | | | | | | |
| B | 32 | NS178 | NS179 | Δ | Δ | Δ | Δ | +FK | | Δ | 8 | 12 | | | | | | | | | | | | |
| B | 33 | NS116 | NS117 | | | | | | | Δ | 3 | 298 | 2.4 | 0.0 | 0.2 | 1.4 | -0.3 | 0.1 | | | | | | |
| B | 34 | NS120 | NS121 | | | | Δ | | | Δ | 0 | 111 | 0.4 | 0.7 | 0.2 | -1.7 | 0.2 | | | | | | | |
| B | 35 | NS124 | NS125 | | | Δ | | | | * | 257 | 2.2 | 0.4 | | 1.4 | 1.8 | 0.6 | | | | | | | |
| B | 36 | NS134 | NS135 | | | Δ | Δ | | | 1 | 94 | 0.7 | 0.6 | | | 0.0 | | 0.6 | | | | | | |
| B | 37 | NS148 | NS149 | Δ | | | | | +FK | | 2 | 291 | 2.5 | | 0.6 | 2.1 | 1.2 | 0.1 | | | | | | |
| B | 38 | NS152 | NS153 | Δ | | | Δ | | | | 8 | 68 | 1.6 | | 0.1 | | -0.8 | 0.0 | | | | | | |
| B | 39 | NS156 | NS157 | Δ | Δ | | | | | 6 | 197 | 2.6 | | | 1.7 | 1.6 | 0.1 | | | | | | | |
| B | 40 | NS166 | NS167 | Δ | Δ | Δ | | | | 3 | 62 | 1.6 | | | | 0.4 | | 0.1 | | | | | | |
| B | 41 | NS116 | NS117 | | | | | +FK | | Δ | 0 | 372 | 0.1 | 1.6 | 2.3 | 0.0 | | 0.3 | | | | | | |
| B | 42 | NS120 | NS121 | | | Δ | | +FK | | 1 | 364 | 0.1 | 1.6 | 1.9 | | | 0.8 | | | | | | | |
| B | 43 | NS124 | NS125 | | | Δ | | +FK | | * | 76 | 0.1 | 0.2 | | | -0.3 | | 0.9 | | | | | | |
| B | 44 | NS134 | NS135 | | | Δ | Δ | +FK | | 1 | 96 | 0.4 | 1.1 | | | | 1.0 | | | | | | | |
| B | 45 | NS148 | NS149 | Δ | | | | +FK | | 1 | 124 | 2.4 | | 0.9 | 0.0 | | | 0.1 | | | | | | |
| B | 46 | NS152 | NS153 | Δ | | | Δ | +FK | | 4 | 123 | 2.6 | | | 1.4 | | | 0.3 | | | | | | |
| B | 47 | NS156 | NS157 | Δ | Δ | | | +FK | | 2 | 67 | 2.3 | | | 0.5 | | | 1.2 | | | | | | |
| B | 48 | NS166 | NS167 | Δ | Δ | Δ | | +FK | | 1 | 46 | 1.9 | | | | | | 0.9 | | | | | | |
| B | 49 | NS118 | NS119 | | | | | | | Δ | 2 | 277 | 2.2 | 0.0 | 0.8 | 1.5 | -0.1 | | | | | | | |
| B | 50 | NS126 | NS127 | | | | Δ | | | Δ | 2 | 97 | 0.1 | 0.5 | 0.6 | | -1.2 | | | | | | | |
| B | 51 | NS128 | NS129 | | | Δ | | | | Δ | 2 | 164 | 1.5 | -0.1 | | 1.4 | 2.0 | | | | | | | |
| B | 52 | NS142 | NS143 | | | Δ | Δ | | | Δ | 2 | 64 | 0.2 | 0.1 | | | 0.4 | | | | | | | |
| B | 53 | NS150 | NS151 | Δ | | | | | +FK | | 3 | 272 | 2.3 | | 0.6 | 2.0 | 1.2 | | | | | | | |
| B | 54 | NS158 | NS159 | Δ | | | Δ | | | Δ | 3 | 67 | 0.9 | | 0.2 | | -0.6 | | | | | | | |
| B | 55 | NS162 | NS163 | Δ | Δ | | | | | Δ | * | 178 | 2.3 | | | 1.6 | 2.6 | | | | | | | |
| B | 56 | NS174 | NS175 | Δ | Δ | Δ | | | | Δ | 4 | 59 | 1.3 | | | | 1.3 | | | | | | | |
| B | 57 | NS118 | NS119 | | | | | +FK | | Δ | 2 | 297 | 0.5 | 1.4 | 2.9 | 0.5 | | | | | | | | |
| B | 58 | NS126 | NS127 | | | | Δ | +FK | | Δ | 4 | 215 | 0.0 | 1.1 | 2.2 | | | | | | | | | |
| B | 59 | NS128 | NS129 | | | Δ | | +FK | | Δ | 3 | 41 | 0.1 | 0.5 | | | -0.2 | | | | | | | |
| B | 60 | NS142 | NS143 | | | Δ | Δ | +FK | | Δ | 29 | 48 | 0.3 | 1.0 | | | | | | | | | | |
| B | 61 | NS150 | NS151 | Δ | | | | +FK | | Δ | 1 | 115 | 1.6 | | 2.0 | 0.2 | | | | | | | | |
| B | 62 | NS158 | NS159 | Δ | | | Δ | +FK | | Δ | 3 | 103 | 2.0 | | | 2.1 | | | | | | | | |
| B | 63 | NS162 | NS163 | Δ | Δ | | | +FK | | Δ | * | 29 | 1.0 | | | 0.2 | | | | | | | | |
| B | 64 | NS174 | NS175 | Δ | Δ | Δ | | +FK | | Δ | 9 | 25 | 1.1 | | | | | | | | | | | |

Footnotes

[a] addition of 0.2 µg/mL FK506

[b] coefficient of variation between two strains (in %) or one strain (*)

[c] normalized average of IC50 from two strains (in mM CaCl₂)

[d] PF = log base 2 of (IC50 WT strain/IC50 Δ strain)