

Table S4. Genotype summary of non-fluorescent clones found in the first round of recombineering.

From the first round of two-step recombination using the HK cassette (Table 2), nine clones with no GFP^{mut3.1} fluorescence were individually picked and their *lacZ* (or $\Delta lacZ::hsvTK-km^r$) locus was sequenced. For the sequence of primers used for PCR amplification and sequencing (primers P30, 33, P43, and P44), see Table S1.

clone number	HK cassette	genotype
1	No	mutation in <i>gfp</i> ^{mut3.1} (E205 stop)
2	Yes	mutation in <i>hsvtk</i> (D228A)
3	Yes	mutation in <i>hsvtk</i> (D228A)
4	Yes	mutation in <i>hsvtk</i> (D228A)
5	Yes	mutation in <i>hsvtk</i> (T158P)
6	Yes	<i>hsvtk</i> missing
7	Yes	<i>hsvtk</i> missing
8	Yes	<i>hsvtk</i> missing
9	No	No PCR product