**Supplementary File 1**

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| **Plasmid types** | **Plasmid name, cloning and primer information** |
| Promoter plasmids (Multi-Site Gateway slot 1): | The generation of **dg68***[slot1 Entry mec-3p(noATG)]* and **dg229***[slot1 Entry QUASprom]* was previously described in Schild and Glauser, 2015. |
| Plasmids with *cmk-1* point mutations and primers used for site-directed mutagenesis: | The generation of **dg588***[slot2 Entry cmk-1(K71A/R74Q/R77S)],* **dg589***[slot2 Entry cmk-1(W305S)],* **dg590***[slot2 Entry cmk-1(V292A/V294A)],* **dg591***[slot2 Entry cmk-1(L321A/L323A)],* **dg593***[slot2 Entry cmk-1(K307Q)],* **dg658***[slot2 Entry cmk-1(K71A/R74Q/R77S/V292A/V294A)]* was previously described in Ippolito *et al.* 2021. The generation of **dg214** *[slot2 Entry cmk-1(T179A)]* was previously described in Schild *et al.* 2014.**dg592***[slot2 Entry cmk-1(T179D)]*T179D\_F: gacGCGTGTGGAACACCGGGATAT179D\_R: AGCCATTACTCCTGAATCTTCGGTTTTTG**dg661***[slot2 Entry cmk-1(K71A/R74Q/R77S/T179D)]*T179D\_F/R with dg588 (Ippolito *et al.* 2021) as template**dg662***[slot2 Entry cmk-1(W305S/T179D)]*W305S\_F/R (Ippolito *et al.* 2021) with dg592 as template**dg664***[slot2 Entry cmk-1(T179A/V292A/V294A)]*NES288-294\_F/R (Ippolito *et al.* 2021) with dg214 as template**dg692***[slot2 Entry cmk-1(T179A/W305S)]*W305S\_F/R (Ippolito *et al.* 2021) with dg214 as template**dg932***[slot2 Entry cmk-1(S325A)]*S325A\_F: gCcAATAGCAATCGCCTACAGAAACAAGCTS325\_R: GGAGAGACGGAGCATTTGAAGCT**dg933***[slot2 Entry cmk-1(S325D)]*S325D\_F: gacAATAGCAATCGCCTACAGAAACAAGCTS325\_R: GGAGAGACGGAGCATTTGAAGCT**dg998***[slot2 Entry cmk-1(T179D/V292A/V294A)]*T179D\_F/R with dg590 (Ippolito *et al.* 2021) as template**dg1000***[slot2 Entry cmk-1(K71A/R74Q/R77S/V292A/V294A/L321A/L323A)]*NES314-323\_F/R (Ippolito *et al.* 2021) with dg658 as template**dg1001***[slot2 Entry cmk-1(K71A/R74Q/R77S/V292A/V294A/K307Q)]*NLS297-308\_F/R (Ippolito et al.2021) with dg658 as template |
| Plasmid for ckk-1 expression | **dg350** *[slot2 Entry ckk-1b (with ATG noSTOP)]* was created by BP recombination into pDONR\_221 of a PCR product generated with attB1ckk-1a\_F ggggacaagtttgtacaaaaaagcaggcttaatgtacacatttcagtcggtctcacaattB2ckk-1\_R ggggaccactttgtacaagaaagctgggtcctattgtctagcggactcgacttttg**dg287***[slot2 Entry ckk-1b (with ATG noSTOP)]* was created by BP recombination into pDONR\_221 of a PCR product generated with attB1ckk-1b\_F ggggacaagtttgtacaaaaaagcaggcttaatgaaaaacacgttcgcacgatactattB2ckk-1\_R ggggaccactttgtacaagaaagctgggtcctattgtctagcggactcgacttttg |
| 3’ UTR and tagging plasmids (Multi-site Gateway slot 3) | **mg211** *[slot3 Entry unc-54 3’UTR]* (aka pMH473) was a gift from Marc Hammarlund.**dg397** *[slot3 Entry mNG::3xFLAG::unc-54 3’UTR]* previously described in (Hostettler *et al.* 2017). |
| Selection markers used for transgenesis | **dg9** [coel::RFP] *(or unc-122p::RFP)* was a gift from Piali Sengupta (Addgene plasmid # 8938) |
| Expression plasmids used for transgenesis with a description of their creation | **dg405***[mec-3p::cmk-1::mNG::3xFlag]* was previously described in (Hostettler *et al.* 2017). **dg605***[mec-3p::cmk-1(K71A/R74Q/R77S)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg588, dg397 and pDEST-R4-P3. **dg606***[mec-3p::cmk-1(W305S)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg589, dg397 and pDEST-R4-P3. **dg607***[mec-3p::cmk-1(V292A/V294A)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg590, dg397 and pDEST-R4-P3. **dg665***[mec-3p::cmk-1(K71A/R74Q/R77S/V292A/V294A)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg658, dg397 and pDEST-R4-P3. **dg609***[mec-3p::cmk-1(T179D)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg592, dg397 and pDEST-R4-P3. **dg614***[mec-3p::cmk-1(T179A)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg214, dg397 and pDEST-R4-P3. **dg668***[mec-3p::cmk-1(K71A/R74Q/R77S/T179D)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg661, dg397 and pDEST-R4-P3. **dg669***[mec-3p::cmk-1(W305S/T179D)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg662, dg397 and pDEST-R4-P3. **dg671***[mec-3p::cmk-1(T179A/V292A/V294A)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg664, dg397 and pDEST-R4-P3. **dg698***[mec-3p::cmk-1(T179A/W305S)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg692, dg397 and pDEST-R4-P3. **dg936***[mec-3p::cmk-1(S325D)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg933, dg397 and pDEST-R4-P3. **dg941***[mec-3p::cmk-1(T179D/S325A)::mNG::3xFlag::unc-54 3’UTR]* was created by PCR site-directed mutagenesis from dg609. **dg1007***[mec-3p::cmk1(T179D /V292A/V294A)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg998, dg397 and pDEST-R4-P3.**dg1006***[mec-3p::cmk1(K71A/R74Q/R77S/V292A/V294A/L321A/L323A)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg1000, dg397 and pDEST-R4-P3.**dg1005***[mec-3p::cmk1(K71A/R74Q/R77S/V292A/V294A/K307Q)::mNG::3xFlag::unc-54 3’UTR]* was created through a LR recombination reaction between dg68, dg1001, dg397 and pDEST-R4-P3.**dg305***[QUAS:: ckk-1b:: GFP::unc-54 UTR]* was created through a LR recombination reaction between dg229, dg287, mg208 and pDEST-R4-P3.**dg369***[QUAS:: ckk-1a:: GFP::unc-54 UTR]* was created through a LR recombination reaction between dg229, dg350, mg208 and pDEST-R4-P3.**dg1013***[mec-3p::cmk1(K71A/R74Q/R77S/V292A/V294A/S325A)::mNG::3xFlag::unc-54 3’UTR]* was created by PCR site-directed mutagenesis with: S325A\_F: gCcAATAGCAATCGCCTACAGAAACAAGCTS325\_R: GGAGAGACGGAGCATTTGAAGCTfrom dg665.**dg1021***[mec-3p::cmk1(V292A/V294A/S325A)::mNG::3xFlag::unc-54 3’UTR]* was created by PCR site-directed mutagenesis from dg607. |