

Table S1 Primer used for cloning.

Primer	Sequence 5'-3'	Cloning of
1	CACCATGGCTTCCCACAACGAA	CNGC20
2	CTAAAGGCTATAACTAGACTGAGGAGTG	CNGC20+stop, CNGC20-CC, CNGC20-C
3	AAGGCTATAACTAGACTGAGGAGTGCA	CNGC20-stop
4	CACCATGGCTCTTGGTAAAA	CNGC20-C, CNGC20-C- Δ C63, CNGC20-C- Δ C34
5	AAGCTTAAGGCTATAACTAGAC	CNGC20-C-stop
6	GGATCMCAGCGAAAACGCCTCCACATT	CNGC20-C- Δ C63
7	GGATCMAGAGTCGTACCTTATGGCTCCTTG	CNGC20-C- Δ C34
8	CTAGTCGTACCTTATGGCTCCTTG	CNGC20- Δ C34
9	CACCATGGCGTTTTTCGCTGAGTGTAG	CNGC20- α B/C
10	TCATGGAGAGTCGTACCTTATGGC	CNGC20- α B/C
11	CACCATGTCTCCATATTGGAGGCTACGAGCG	CNGC20-CC
12	CACCATGTTTTCGAGATTCTTGA	CNGC20- α C
13	CTATCGTAGCCTCCAATATGGAG	CNGC20- α C
14	CACCATGGCGGCTAGGCAGATTCAAG	CNGC20-IQ
15	CTAAAGCCGTCTCCTACGGTATC	CNGC20-IQ
16	CACCATGGCGGATCAGCTCACAGA	CaM2-stop
17	<u>GGATCC</u> CTTAGCCATCATAACCT	CaM2-stop
18	CACCATGGCGGATCAGCTAACTGA	CaM4
19	GGATCMTCACTTAGCCATCATAATCT	CaM4
20	CACCATGGCGGATCAGCTCACC	CaM6
21	TCACTTAGCCATCATG	CaM6
22	CACCATGGCGGATCAGCTAAC	CaM7
23	TCACTTTGCCATCATG	CaM7
24	CACCATGGAAGAAACAGCACTGAC	CML8
25	GGATCMGTCAATGTTGATCATCATCTTG	CML8
26	CACCATGGCGGATGCTTTCA	CML9
27	GGATCMATAAGAGGCAGCA	CML9
28	GGCGCGCCATGGTGAGCAAGGGCGAGGAG	mCherry
29	GGCGCGCCTTCGAACTAGTTGTACAGCTCGTCCA TGCCG	mCherry
30	TGAGAATATTTTCGTTGATGGATGAACC	MBP-CNGC20-C
31	CGCCCAAGCTTCTAAAGGCTATAAC	MBP-CNGC20-C
32	GGATCCCATGGCGGATCAGCTCAC	Strep-CaM2
33	CTGCAGTCACTTAGCCATCATAACC	Strep-CaM3
34	GGCGTGGAGATACGCTGCAGCACGGCTTCATAG ATTATGCACTCCTCAGTCTAGTTATAGCC	Mutation of NLS in CNGC20
35	GGCTATAACTAGACTGAGGAGTGCATAATCTATG AAGCCGTGCTGCAGCGTATCTCCACGCC	Mutation of NLS in CNGC20