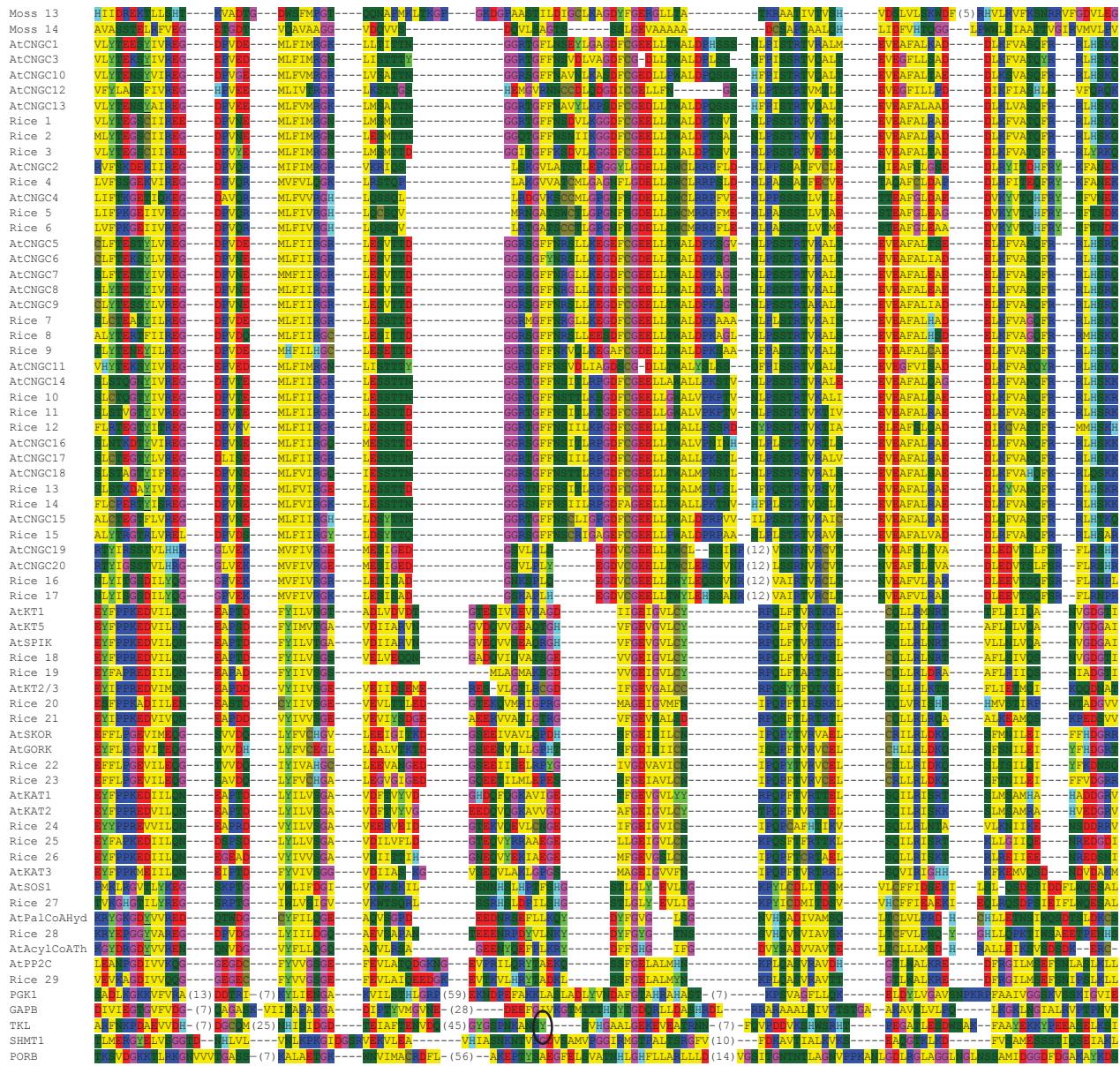


Ce 1	VIVVAPVIIIS	Y	G	FIVVILS	S	VIVVIVH		VIVVII	S	PFLALIVY		AAVIA		V	IIMK	V	GGGPF
Ce 2	VIPLGGMILGLC	-	VG	-	MVIIIGI	LAVVSS		IPALAGC	-	AVFPEIILLAICG		ERRAFAHAKY		EVVVL		Y	AAE
Ce 3	VVPAQVQLESG	Y	A	MPIVVGL	LAVV	VIVVII		PFVLLVLSG	HIFPEIIVVY	ILGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 4	VVBQVQLESG	Y	A	LPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ILGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 5	VVBQVQVLAH	Y	A	LPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ILGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 6	VVBQVQVLAH	Y	A	MPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ILGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 7	VVBQGPIKKG	DIG	C	MPIVVGL	Y	VIVVII		DDGKSVFVLLG	VFPEIILLAICG	IGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 8	HPIQGQVHKG	DIG	C	LPIVVGL	Y	VIVVII		DDGKSVFVLLG	VFPEIILLAICG	IGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 9	HPIQGQVHKG	DIG	C	LPIVVGL	Y	VIVVII		DDGKSVFVLLG	VFPEIILLAICG	IGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 10	HPIQGQVHKG	DIG	C	MPIVVGL	Y	VIVVII		DDGKSVFVLLG	VFPEIILLAICG	IGSEVVERVEY		EVVVL		Y	EVVLY		EEEV
Ce 11	GYDGGHYIIPG	AGGA	F	FFVILG	S	VIVVII	GGEG	PRPVVLL	SPFPEIILLAICG	EVVLLVLL		EVVVL		Y	EVVLY		EEEV
Ce 12	VVPAQVATII	Y	LG	MPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ALPFLALIHC		EVVVL		Y	EVVLY		EEEV
Ce 13	VVPAQVATII	Y	LG	MPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ALPFLALIHC		EVVVL		Y	EVVLY		EEEV
Ce 14	VVPAQVATII	Y	LG	LPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ALPFLALIHC		EVVVL		Y	EVVLY		EEEV
Ce 15	HPIQGQVHKG	DIG	C	MPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	ALPFLALIHC		EVVVL		Y	EVVLY		EEEV
Dd PKA	VLYVAGQVIIIS	S	DIG	FFVILG	S	VIVVII		GGLYMVPVLSG	SPFPEIILLAICG	AAVIA		VLLAALV		Y	EVVLY		EEEV
Dd GbpA	YVQGQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Dd GbpB	VPEAHVQVIIIS	S	DIG	MPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Dd GbpC	PFVQVQVIIIS	S	DIG	LPIVVGL	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Dd GbpD	LPVQGQVIIIS	S	DIG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 1	YVPAQVATII	Y	LG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 2	YVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 3	CFPAQVATII	Y	LG	FFVILG	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 4	EVVNGIVFHEG	DIG	C	PFVILG	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 5	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 6	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 7	IVVPAQVATII	Y	LG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 8	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 9	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 10	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 11	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 12	YVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 13	CEVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 14	CEVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Pt 15	LPVQVQVIIIS	S	DIG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Sc 1	VNPLA	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Sc 2	EVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Sc 3	EVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Ec CAP	HPIQGQVHKG	DIG	C	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Ec 1	FPLAQLIVV	S	DIG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Ec 2	LPVQVQVIIIS	S	DIG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Syn 1	DPVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Syn 2	SPVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Syn 3	CPVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Syn 4	SPVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Syn 5	CPVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 1	YVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 2	YVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 3	EVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 4	EVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 5	EVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 6	AAFPVQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 7	IVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 8	HPVQAVVLG	S	DIG	EMYKL	S	VIVVII		HEGVVDSHVPI	SPFPEIILLAICG	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 9	HPVQAVVLG	S	DIG	PFVVAIV	S	VIVVII		HEGVVDSHVPI	SPFPEIILLAICG	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 10	HILARVALV	S	DIG	PFVVAIV	S	VIVVII		HEGVVDSHVPI	SPFPEIILLAICG	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 11	EVVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 12	VPLAHVLPVHG	S	DIG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Cr 13	LIPIQGQVHKG	DIG	C	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 1	PFVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 2	PFVPAQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 3	YVPLGQVIVEDD	S	DIG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 4	LPVQVQVIIIS	S	DIG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 5	LPVQVQVIIIS	S	DIG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 6	LPVQVQVIIIS	S	DIG	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 7	LPVQVQVIIIS	S	DIG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 8	FMVYVQVATII	Y	LG	PFVVAIV	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 9	VLFVPAQVATII	Y	LG	MLFFVQ	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 10	ALPQGQVHKG	DIG	C	MFVIIIS	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 11	ALPQGQVHKG	DIG	C	LPVLLG	Y	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV
Moss 12	LPVQVQVIIIS	S	DIG	MLFIVG	S	VIVVII		PFVLLVLSG	HIFPEIIVVY	EVVVL		EVVVL		Y	EVVLY		EEEV



Additional file 4. Alignment of cyclic nucleotide binding protein candidates with known CNB domains

Representative CNB domains were downloaded from Interpro [IPR000595]. Where the protein has tandem CNB domains these are indicated by the letters “a” and “b”. The number in parenthesis indicates the number of amino acids that have been omitted. The * indicates conserved amino acids across species. The tyrosine residues that have been circled are sites of Y-nitration. Human - *H. sapiens* (Hs): PKA I α [EMBL:P10644], PKA I β [EMBL:P31321], PKA II α [EMBL:A8KAH7], PKA II β [EMBL:P31323],PKG I [EMBL:Q13976],PKG II [EMBL:Q13237], HCN 1 [EMBL:O60741], HCN 2 [EMBL:Q9UL51], HCN 3 [EMBL:Q9P1Z3], HCN 4 [EMBL:Q9Y3Q4], CNG α -1 [EMBL:P29973], CNG α -3 [EMBL:Q16281], CNG α -4 [EMBL:Q8IV77], CNG β -1 [EMBL:Q14028], CNG β -3 [EMBL:Q9NQW8], CNG olfactory (olf) [EMBL:Q16280], K⁺ voltage gated channel (K volt) H1 [EMBL:O95259], K volt H2 [EMBL:Q708S9], K volt H3 [EMBL:Q9ULD8], K volt H4 [EMBL:Q9UQ05], K volt H5 [EMBL:Q8NCM2], K volt H6 [EMBL:Q9H252], K volt H7 [EMBL:Q9NS40], K volt H8 [EMBL:Q96L42], Epac1 [EMBL:O95398], Epac2 [EMBL:Q8WZA2], RAPGEF 2 [EMBL:Q9Y4G8] and RAPGEF 6 [EMBL:Q8TEU7]. Mouse - *Mus musculus* (Mm): PKA I α [EMBL:Q9DBC7], PKA I β [EMBL:P12849], PKA II α [EMBL:Q8K1M3], PKA II β [EMBL:P31324],PKG I [EMBL:P0C605],PKG II [EMBL:Q61410], HCN 1 [EMBL:O88704], HCN 2 [EMBL:O88703], HCN 3 [EMBL:O88705], HCN 4 [EMBL:B2RY58], CNG α -1 [EMBL:P29974], CNG α -3 [EMBL:Q9JJZ8], CNG α -4 [EMBL:Q3UW12], CNG β -3 [EMBL:Q9JJZ9], CNG olf [EMBL:Q62398], K volt H1 [EMBL:Q60603], K volt H5 [EMBL:Q920E3], K volt H6 [EMBL:Q32ME0], K volt H8 [EMBL:P59111], RAPGEF 3 [EMBL:Q8VCC8] and RAPGEF 4 [EMBL:Q9EQZ6]. Chicken - *Gallus gallus* (Gg): PKA I α [EMBL:E1BRS5], PKA I β [EMBL:E1C2U6], PKA II α [EMBL:E1C9H8],PKG II [EMBL:E1C4W9], CNG cone [EMBL:Q90805], CNG rod [EMBL:Q90980], K volt H5 [EMBL:E1BXK7] and RAPGEF 2 [EMBL:E1BVM2]. Frog - *Xenopus laevis* (Xl): PKA I α [EMBL:Q6INK7], PKA I β [EMBL:Q6DJJ2], PKA II β [EMBL:Q6NTM8],PKG II [EMBL:Q6GPV8], RAPGEF 3 [EMBL:Q56TX1] and RAPGEF 2 [EMBL:Q6AX68]. Fish - *Danio rerio* (Dr): PKA I α [EMBL:Q5I0F6], PKA I β [EMBL:Q08C49], PKA II α [EMBL:Q6NW93],PKG I [EMBL:Q7T2E5],PKG II [EMBL:A2AVJ3], HCN 1 [EMBL:E7F8B3], HCN 2 [EMBL:F1QYP7], HCN 4 [EMBL:Q1L917], CNG α -3 [EMBL:E7F485], CNG α -4 [EMBL:F1Q5G4], CNG β -1 [EMBL:F1QK35], CNG β -3 [EMBL:E7F818], CNG olf [EMBL:Q0GFG2], CNG rod [EMBL:E7FE78], K volt H1 [EMBL:Q108P3], K volt H2 [EMBL:Q8JH78], K volt H4 [EMBL:E7FB36], K volt H5 [EMBL:Q5TYT4], K volt H7 [EMBL:E7F7K8], K volt H8 [EMBL:F1QTV6], RAPGEF 4 [EMBL:B0S4Y8] and RAPGEF 2 [EMBL:E9QI83]. Fly - *Drosophila melanogaster* (Dm): Dm 1 [EMBL:Q03042], Dm 2 [EMBL:Q9W201], Dm 3 [EMBL:A1Z9N7], Dm 4 [EMBL:Q9VL34], Dm 5 [EMBL:Q03043], Dm 6 [EMBL:Q9VJE6], Dm 7 [EMBL:Q2MGL9], Dm 8 [EMBL:Q7JPB9], Dm 9 [EMBL:P16905], Dm 10 [EMBL:Q9W2D5], Dm 11 [EMBL:Q9VXV8], Dm 12 [EMBL:Q24278], Dm 13 [EMBL:Q9VXJ8], Dm 14 [EMBL:Q02280], Dm 15 [EMBL:Q9VGW3], Dm 16 [EMBL:Q8T4B9], Dm 17 [EMBL:E1JJF4], Dm 18 [EMBL:Q9VMF3], Dm 19 [EMBL:A1Z6P8], Dm 20 [EMBL:C7LA62], Dm 21 [EMBL:A8Y516] and Dm 22 [EMBL:P81900]. Worm - *Caenorhabditis elegans* (Ce): Ce 1 [EMBL:P30625], Ce 2 [EMBL:P90975], Ce 3 [EMBL:Q9N4C1], Ce 4 [EMBL:O61827], Ce 5 [EMBL:G5EDB9], Ce 6 [EMBL:A8WI01], Ce 7 [EMBL:Q03611], Ce 8 [EMBL:G5EE47], Ce 9 [EMBL:O44164], Ce 10 [EMBL:Q7Z205], Ce 11 [EMBL:O76360], Ce 12 [EMBL:H2KYN2], Ce 13 [EMBL:P34578], Ce 14 [EMBL:Q02331] and Ce 15 [EMBL:Q21534]. Slime mold - *Dictyostelium discoideum* (Dd): PKA [EMBL:P05987],

GbpA [EMBL:Q8MLZ3], GbpB [EMBL:Q8MM62], GbpC [EMBL:Q8MVR1] and GbpD [EMBL:Q54S40]. Protozoa - *Paramecium tetraurelia* (Pt): Pt 1 [EMBL:A0EIQ4], Pt 2 [EMBL:A0E8R0], Pt 3 [EMBL:Q3SEN1], Pt 4 [EMBL:A0CMH6], Pt 5 [EMBL:A0E7L3], Pt 6 [EMBL:A0BXC3], Pt 7 [EMBL:A0DN90], Pt 8 [EMBL:A0EB61], Pt 9 [EMBL:A0CP78], Pt 10 [EMBL:A0BEU4], Pt 11 [EMBL:A0BTC2], Pt 12 [EMBL:A0D1E5], Pt 13 [EMBL:A0BVR3], Pt 14 [EMBL:A0CW70] and Pt 15 [EMBL:A0CSD1]. Yeast - *Saccharomyces cerevisiae* (Sc): Sc 1 [EMBL:A6ZM06], Sc 2 [EMBL:A6ZVN6] and Sc 3 [EMBL:A6ZUD9]. Bacteria – *E. coli* (Ec): CAP [EMBL:P0ACJ8], Ec 1 [EMBL:P0A9E9] and Ec 2 [EMBL:P0A9E5]. Cyanobacteria – *Synechococcus* sp. JA-2-3B'a[2-13] (Syn): Syn 1 [EMBL:Q2JH72], Syn 2 [EMBL:Q2JKW7], Syn 3 [EMBL:Q2JLI3], Syn 4 [EMBL:Q2JIT2] and Syn 5 [EMBL:Q2JK4]. Algae - *Chlamydomonas reinhardtii* (Cr): Cr 1 [EMBL:A8IYM3], Cr 2 [EMBL:A8IYN1], Cr 3 [EMBL:A8I6P0], Cr 4 [EMBL:A8HZS1], Cr 5 [EMBL:A8JDQ7], Cr 6 [EMBL:A8IXU5], Cr 7 [EMBL:A8J8T7], Cr 8 [EMBL:Q695H0], Cr 9 [EMBL:A8J0U9], Cr 10 [EMBL:A8JCV1], Cr 11 [EMBL:A8IH98], Cr 12 [EMBL:A8HX98] and Cr 13 [EMBL:A8J7I2]. Moss - *Physcomitrella patens*: moss 1 [EMBL:A5PH36], moss 2 [EMBL:A5PH37], moss 3 [EMBL:Q7XB48], moss 4 [EMBL:A9RTB2], moss 5 [EMBL:A9SD47], moss 6 [EMBL:A9SHM8], moss 7 [EMBL:A9SIB5], moss 8 [EMBL:D2U576], moss 9 [EMBL:A9T9L8], moss 10 [EMBL:A9T8G5], moss 11 [EMBL:A9SDJ9], moss 12 [EMBL:A9SNU5], moss 13 [EMBL:A9TTE5] and moss 14 [EMBL:A9TV43]. *A. thaliana* (At): CNGC1 [EMBL: O65717], CNGC2 [EMBL: O65718], CNGC3 [EMBL: Q9SKD7], CNGC4 [EMBL: Q94AS9], CNGC5 [EMBL: Q8RWS9], CNGC6 [EMBL: O82226], CNGC7 [EMBL: F4I2R9], CNGC8 [EMBL: Q9FXH6], CNGC9 [EMBL: Q9M0A4], CNGC10 [EMBL: Q9LNJ0-2], CNGC11 [EMBL: Q9SKD6], CNGC12 [EMBL: Q8GWD2], CNGC13 [EMBL: Q9LD40], CNGC14 [EMBL: Q9SJA4], CNGC15 [EMBL: Q9SL29], CNGC16 [EMBL: Q9SU64], CNGC17 [EMBL: Q8L7Z0], CNGC18 [EMBL: Q9LEQ3], CNGC19 [EMBL: Q9LDR2], CNGC20 [EMBL: Q9LD37], KT1 [EMBL:Q38998], KT2/3 [EMBL:Q38898], KT5 [EMBL:Q9SCX5], SPIK [EMBL:Q8GXE6], GORK [EMBL:Q94A76], SKOR [EMBL:Q9M8S6], KAT1 [EMBL:Q39128], KAT2 [EMBL:Q38849], KAT3 [EMBL:P92960], SOS1 [EMBL:Q9LK9], PP2C [EMBL:Q9SL76], palmitoyl CoA hydrolase (Pal CoA Hyd) [EMBL:F4HU51] and acyl CoA thioesterase (Acyl CoA Th) [EMBL:Q5FYU1]. Rice - *Oryza sativa*: rice 1 [EMBL:B9FTK2], rice 2 [EMBL:B9F4U7], rice 3 [EMBL:B9FTK3], rice 4 [EMBL:Q9AUV9], rice 5 [EMBL:Q60EI8], rice 6 [EMBL:Q5ZAU3], rice 7 [EMBL:Q2QRA3], rice 8 [EMBL:Q10G24], rice 9 [EMBL:Q7X641], rice 10 [EMBL:B9F3N3], rice 11 [EMBL:B9FRX2], rice 12 [EMBL:Q6ZG24], rice 13 [EMBL:Q0IPW9], rice 14 [EMBL:Q653S0], rice 15 [EMBL:Q6K6P3], rice 16 [EMBL:A3B9H5], rice 17 [EMBL:B9F3H5], rice 18 [EMBL:Q0JKV1], rice 19 [EMBL:B9FVS3], rice 20 [EMBL:A2ZX97], rice 21 [EMBL:Q75HP9], rice 22 [EMBL:Q7XUW4], rice 23 [EMBL:Q653P0], rice 24 [EMBL:Q5QNI1], rice 25 [EMBL:Q5JM04], rice 26 [EMBL:Q6K3T2], rice 27 [EMBL:Q0ILJ6], rice 28 [EMBL:Q7XPS0] and rice 29 [EMBL:Q6K3D4].