

Ens84	Common name	Scientific name	Abbreviation	Assembly Ensembl	Assembly NCBI
	Anole lizard	Anolis carolinensis	Aca	AnoCar2.0	AnoCar2.0
	Amphioxus	Branchiostoma floridae	Bfl		GCA_000003815.1 Version 2
	Ciona intestinalis	Ciona intestinalis	Cin	KH	KH
	Ciona savignyi	Ciona savignyi	Csa	CSAV 2.0	
	Caenorhabditis elegans	Caenorhabditis elegans	Cel	WBcel235	
	Chicken	Gallus gallus	Gga	GaGal4	
	Chinese softshell turtle	Pelodiscus sinensis	Psi	PelSin_1.0	PelSin_1.0
	Coelacanth	Latimeria chalumnae	Lch	LatCha1	LatCha1
	Fruttilly	Drosophila melanogaster	Dme	BDGP6	
	Human	Homo sapiens	Hsa	GRCh38.p5	
	Mouse	Mus musculus	Mmu	GRCh38.p4	
	Spotted gar	Lepisosteus oculatus	Loc	LepOcu1	LepOcu1
	Zebrafish	Danio rerio	Dre	GRCh10	GRCh11

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	ACAP2 ACAP1 ACAP3	3: 195.27m 17: 7.34m 1: 1.29m	ENSG00000114331 ENSG00000072818 ENSG00000131584	ENST00000326793 ENST00000158762 ENST00000354700	Hsa_3_ACAP2 Hsa_17_ACAP1 Hsa_1_ACAP3	
Chicken		9: 12.17m 21: 2.41m	ENSGALG0000007040 ENSGALG00000001770	ENSALT0000011404 ENSALT00000002716	Gga_9 Gga_21	
Chinese softshell turtle		NW_00581936: 0.69m	XP_01432732.1		Psi_scaffoldNW00581936	nov-15
Coelacanth		NW_005819052: 1.36m NW_005819011: 4.32m JH12871: 0.02m	XP_014340186.1 XP_014342408.1 ENSLACG00000001521		Lch_scaffoldNW005819052 Lch_scaffoldNW005819011 Lch_scaffoldJH12871	okt-16 okt-15 okt-15. Assigned family member name in synteny figure and tree: ACAP4
Spotted gar		LG14: 8.27m LG2: 58.0m LG25: 4.19m LG14: 18.39m	ENSLOC00000004722 ENSLOC000000013309 ENSLOC000000002244 ENSLOC00000009961	ENSLOC00000005672 ENSLOC000000016443 ENSLOC00000002888 ENSLOC00000011064	Loc_LG14_1 Loc_LG2 Loc_LG25 Loc_LG14_2	
Zebrafish	acap2 sl:ch211-168b3.1 acap1 acap3b acap3a zgc:162872	22: 37.80m 2: 5.98m 7: 19.81m 11: 3.32m 23: 36.89m 15: 46.68m	ENSADRG00000006783 ENSADRG000000056478 ENSADRG000000056346 ENSADRG000000099240 XP_021325699.1 XP_009290262.1	ENSADRT000000085931 ENSADRT00000147831 ENSADRT00000052902 ENSADRT00000168310	Dre_22_acap2a Dre_2_acap2b Dre_7_acap1 Dre_11_acap3b Dre_23_acap3a Dre_15_acap4	assigned family member name in synteny figure and tree: ACAP4 assigned gene name in this study: acap2a assigned gene name in this study: acap2b jun-17 jun-17. Assigned gene name in this study: acap4
Ciona savignyi		refl14: 1.01m	ENSCSAVG00000010620	ENSCSAVT00000018234	Csa_ref14	
Ciona intestinalis		HT000171: 0.14m	ENSCING00000006167	ENSCINT00000012735	Cin_scaffoldHT00017	
Fruttilly	CenB1A	3R: 23.12m	FBgn0039056	FBtr0084368	Dme_3R	
C. elegans		II: 12.07m	VBGene00000565	Y17G7B.15a	Cel_II	

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	ARRB2 ARRB1 ARR3 SAG	17: 4.71m 11: 75.26m X: 70.27m 2: 233.31m	ENSG00000141480 ENSG00000137486 ENSG00000120500 ENSG00000130561	ENST00000269260 ENST00000420843 ENST00000307959 ENST00000409110		
Chicken		4: 1.22m 9: 0.71m	ENSGALG00000004251 ENSGALG00000001696	ENSALT00000006763 ENSALT00000002605		
Chinese softshell turtle		JH209908: 0.89m JH206873: 0.01m JH206129: 1.11m JH210973: 0.51m	ENSPSIG00000014844 ENSPSIG00000018222 ENSPSIG00000010334 ENSPSIG00000002165	ENSPSIT00000016840 ENSPSIT000000020687 ENSPSIT00000001583 ENSPSIT00000002178		
Coelacanth		NW_005822132: 0.04m NW_005819271.1: 0.05m NW_005820370: 0.06m NW_00581937: 0.91m	XP_014353915.1 XP_005995570.2 XP_014350403.1 XP_005997188.1			okt-15 okt-15 okt-15 okt-15
Spotted gar		LG2: 57.31m LG3: 2.50m LG7: 46.84m LG14: 18.77m	ENSLOC000000013132 ENSLOC000000002578 ENSLOC000000051190 ENSLOC00000009254	ENSLOC00000016220 ENSLOC00000003059 ENSLOC00000018721 ENSLOC00000011315		
Zebrafish	arrb2a arrb2b arrb1 arrb3 arrb3a saga	10: 22.92m 7: 25.65m 15: 5.40m 14: 32.50m 10: 26.84m 2: 5.57m	ENSADRG000000039215 ENSADRG000000011545 ENSADRG000000043241 ENSADRG000000098475 ENSADRG000000056511 ENSADRG000000012610	ENSADRT000000057291 ENSADRT000000026295 ENSADRT00000123839 ENSADRT00000158077 ENSADRT00000078996 ENSADRT00000145035		
Ciona savignyi		refl14: 30: 2.41m	ENSCSAVG00000008547	ENSCSAVT00000014786		
C. elegans		X: 0.95m	VBGene00000195	F53H8.2		
Fruttilly	Arr1 Arr2-RA kiz	2L: 18.08m 3L: 8.65m 3R: 32.05m	FBgn0000120 FBgn0000121 FBgn0040206	FBtr0307350 FBtr0076599 FBtr0085877		

For phylogenetic analyses of the ARRB gene family, see: Indrischek, H., Prohaska, S.J., Gurevich, V.V., Gurevich, E.V., and Stadler, P.F. (2017). Uncovering missing pieces: duplication and deletion history of arrestins in deuterostomes. BMC Evolutionary Biology 17, 163.

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	DLG4 DLG1 DLG2 DLG3	17: 7.19m 3: 197.04m 11: 83.46m X: 70.44m	ENSG00000132535 ENSG000000707511 ENSG00000150672 ENSG000000082458	ENST00000399510 ENST00000346964 ENST00000280241 ENST00000374360	Hsa_17_DL4 Hsa_3_DL1 Hsa_11_DL2 Hsa_X_DL3	
Mouse		11: 70.02m 16: 31.66m 7: 91.09m X: 100.77m	ENSMUSG000000020886 ENSMUSG000000022770 ENSMUSG000000052572 ENSMUSG000000000881	ENSMUST00000108588 ENSMUST00000004477 ENSMUST00000107196 ENSMUST000000087984	Mmu_11 Mmu_16 Mmu_7 Mmu_X	
Chicken		9: 11.96m 1: 188.46m 4: 0.45m	ENSALG000000009038 ENSALG000000017254 ENSALG000000005817	ENSALT00000011195 ENSALT00000027891 ENSALT00000009343	Gga_9 Gga_1 Gga_4	
Chinese softshell turtle		NW_00581936: 1: 0.32m JH210545: 0.86m NW_005857732: 1: 1.74m JH206626: 0.41m	XP_01432588.1 ENSPSIG00000017658 XP_006132243.1 ENSPSIG00000011382	ENSPSIT000000020093 ENSALT000000000000 ENSALT000000000000 ENSALT000000000000	Psi_scaffoldNW00581936 Psi_scaffoldJH210545 Psi_scaffoldNW005857732 Psi_scaffoldJH206626	nov-15 nov-15
Coelacanth		NW_005819430: 1: 0.83m JH126603: 1.68m NW_005819748: 1: 0.62m NW_005819371.1: 1.25m	XP_014345076.1 ENSLACG00000016675 XP_014347408.1 XP_014344538.1	ENSLACT00000019087	Lch_scaffoldNW005819430 Lch_scaffoldJH126603 Lch_scaffoldNW005819748 Lch_scaffoldNW005819371	Oct-2015, manually edited Oct-2015, manually edited Oct-2015, manually edited
Spotted gar		LG2: 59.58m LG14: 1.92m LG3: 7.68m LG7: 46.97m	ENSLOC000000013673 ENSLOC000000001427 ENSLOC000000005438 ENSLOC000000015203	ENSLOC00000016888 ENSLOC00000001693 ENSLOC000000006577 ENSLOC000000018748	Loc_LG2 Loc_LG14 Loc_LG3 Loc_LG7	manually edited
Zebrafish	dlg4a dlg4b dlg1 dlg1l dlg2 dlg3	5: 87.76m 23: 44.26m 6: 29.87m 2: 5.06m 10: 29.39m 14: 32.73m	XP_009300293.1 NP_999893.1 ENSADRG00000009677 ENSADRG00000102216 ENSADRG000000096323 ENSADRG000000076796	ENSADRT00000028406 ENSADRT00000163728 ENSADRT00000161761 ENSADRT00000078856	Dre_5_dlg4a Dre_23_dlg4b Dre_6_dlg1a Dre_2_dlg1b Dre_10_dlg2 Dre_14_dlg3	aug-17 aug-17 assigned gene name in this study: dlg1a assigned gene name in this study: dlg1b
Amphioxus		NW_003101259: 1: 0.67k NW_003101458: 1: 0.18m	XP_002585965.1 XP_002589761.1		Bfl_scaffoldNW003101259 Bfl_scaffoldNW003101458	okt-09 okt-09
Ciona intestinalis		1: 5.31m 1: 1.72m	ENSCING00000004817 ENSCING00000004775	ENSCINT000000004629 ENSCINT000000009884	Cin_1 Cin_1_2	
Ciona savignyi		refl14: 30: 2.58m refl14: 30: 2.58m	ENSCSAVG00000009218 ENSCSAVG00000009218	ENSCSAVT00000015866 ENSCSAVT00000015866	Csa_ref30 Csa_30	
Fruttilly	dlg1	X: 11.37m	FBgn0001624	FBtr0112813	Dme_X	
C. elegans		X: 5.48m	VBGene0001006	C25F6.2a	Cel_X	

GNB: for phylogenetic analysis and chromosomal positions see Lagman D, Sundström G, Ocampo Daza D, Abalo XM, Larhammar D (2012) Expansion of transducin subunit gene families in early vertebrate tetraploidizations. Genomics 100:203–211.

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	GIGYF1	7: 100.68m	ENSNG00000146830	ENST00000275732	Hsa_7_GIGYF1	
	GIGYF2	2: 232.70m	ENSNG00000204120	ENST00000373563	Hsa_2_GIGYF2	
Chicken		9: 0.49m	ENSNGALG00000001482	ENSNGALT00000002246	Gga_9	
Anole lizard		GL343926: 0.09m	ENSACAG00000003446	ENSACAT00000003511	Aca_926	
Coelacanth		NW_005819560: 0.39m		XP_014346128.1	Lch_scaffoldNW005819560	mar-17
		NW_005819373: 0.82k		XP_005997241.2	Lch_scaffoldNW005819373	mar-17
Spotted gar		LG2: 58.74m	ENSLOCG00000013446	ENSLOCT00000016610	Loc_LG2	
		LG14: 18.60m	ENSLOCG00000009165	ENSLOCT00000011202	Loc_LG14	
Zebrafish	gigyl1a	7: 20.60m	ENSNDARG000000098932	ENSNDART00000164172	Dre_7_gigyl1a	
	gigyl1b	10: 22.54m	ENSNDARG000000078691	ENSNDART00000109070	Dre_10_gigyl1b	
	gigyl2	2: 48.35m	ENSNDARG00000009735	ENSNDART00000056277	Dre_2_gigyl2	
Ciona savignyi		reflfig 25: 1.06m	ENSNSAVG00000008194	ENSNSAVT00000014142	Csa_25	
Drosophila		4: 0.85m	FBgn0039936	FBtr0300886	Dme_4_	
Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	GPC4	X: 133.30m	ENSNG000000076716	ENST00000370828	Hsa_X_GPC4	
	GPC6	13: 93.23m	ENSNG00000183098	ENST00000377047	Hsa_13_GPC6	
	GPC2	7: 100.17m	ENSNG00000213420	ENST00000292377	Hsa_7_GPC2	
	GPC1	2: 240.44m	ENSNG00000063660	ENST00000264039	Hsa_2_GPC1	
Chicken		4: 3.75m	ENSNGALG00000006080	ENSNGALT00000009812	Gga_4	
		1: 145.76m	ENSNGALG00000016900	ENSNGALT00000027318	Gga_1	
		9: 2.21m	ENSNGALG00000002342	ENSNGALT00000003692	Gga_9	
Chinese softshell turtle		JH209875: 0.07m	ENSPSIG00000012456	ENSPSIT00000014154	Psi_scaffoldJH209875	
Coelacanth		NW_005919072: 2.36m	XP_005999430.1		Lch_scaffoldNW005919072	okt-15
		NW_005819513.1: 0.23m	XP_005999171.1		Lch_scaffoldNW005819513	okt-15
		JH129173: 0.28m	ENSNLACG00000007458	ENSNLACT00000008492	Lch_scaffoldJH129173	manually edited
		JH127395: 0.01m	ENSNLACG00000001066	ENSNLACT00000001201	Lch_scaffoldJH127395	
Spotted gar		LG7: 45.62m	ENSLOCG000000015069	ENSLOCT00000018576	Loc_LG7	
		LG17: 12.82m	ENSLOCG000000004830	ENSLOCT00000005820	Loc_LG17	
		LG2: 57.27m	ENSLOCG000000013124	ENSLOCT00000016201	Loc_LG2	
		LG14: 10.46m	ENSLOCG000000005673	ENSLOCT00000006861	Loc_LG14	
Zebrafish	gpc4	14: 30.75m	ENSNDARG00000015472	ENSNDART00000026969	Dre_14_2_gpc4	jul-17
	gpc6a	1: 2.71m	NP_001103189.1		Dre_1_gpc6a	
	gpc6b	9: 53.82m	ENSNDARG00000104219	ENSNDART00000162661	Dre_9_gpc6b	
	gpc2	14: 0.16m	ENSNDARG00000104217	ENSNDART00000158405	Dre_14_1_gpc2	
	gpc1b	2: 46.18m	ENSNDARG00000090585	ENSNDARG00000090585	Dre_2_gpc1b	
	gpc1a	22: 15.48m	ENSNDARG00000019341	ENSNDART00000125450	Dre_22_gpc1a	
Amphioxus		NW_003101409.1: 8.37m	XP_002593274.1		Bfi_scaffoldNW003101409	okt-09
Ciona intestinalis		HT000043: 0.002m	ENSNCING00000002640	ENSNCINT000000028067	Cin_scaffoldHT000043	
Fruitfly	dip	3L: 14.63m	FBgn0041604	FBtr0075679	Dme_3L	
C. elegans		X: 15.68m	WBGene00001687	F59D12.4	Cel_X	
Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	HDLBP	2: 241.23m	ENSNG00000115677	ENST00000391975	Hsa_2_HDLBP	
Chicken		9: 4.45m	ENSNGALG00000005823	ENSNGALT00000009355	Gga_9	
Anole lizard		GL343466: 0.11m	ENSACAG00000003906	ENSACAT00000003844	Aca_scaffoldGL343466	assigned family member name in synteny figure and tree: hdlbp
Coelacanth		JH127163: 0.09m	ENSNLACG00000003592	ENSNLACT00000004070	Lch_scaffoldJH127163	
		JH127111: 0.29m	ENSNLACG00000007661	ENSNLACT00000008734	Lch_scaffoldJH127111	assigned family member name in synteny figure and tree: hdlbp
Spotted gar		LG14: 11.92m	ENSLOCG00000006278	ENSLOCT00000007602	Loc_LG14	
		LG2: 60.60m	ENSLOCG00000013909	ENSLOCT00000017197	Loc_LG2	assigned family member name in synteny figure and tree: hdlbp
Zebrafish	hdlbp	6: 26.88m	ENSNDARG00000009830	ENSNDART00000011863	Dre_6_hdlbp	
	hdlbp	12: 22.28m	ENSNDARG00000061864	ENSNDART00000153055	Dre_12_hdlbp	assigned family member name in synteny figure and tree: hdlbp
Ciona intestinalis		reflfig 27: 1.29m	ENSNSAVG00000000989	ENSNSAVT00000017161	Csa_ref27	
Ciona savignyi		1: 3.96m	ENSNCING00000004580	ENSNCINT00000009467	Cin_1	
Fruitfly	Dp1	2R: 18.41m	FBgn0027835	FBtr0345226	Dme_2R	
C. elegans		II: 9.89m	WBGene00007463	C08H9.2a	Cel_II	
Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	KCNAB1	3: 156.04m	ENSNG00000169282	ENST00000302490	Hsa_3_KCNAB1	
	KCNAB3	17: 7.21m	ENSNG00000170049	ENST00000303790	Hsa_17_KCNAB3	
	KCNAB2	1: 5.99m	ENSNG00000069424	ENST00000164247	Hsa_1_KCNAB2	
Chicken		9: 22.35m	ENSNGALG00000010269	ENSNGALT00000032974	Gga_9	
		21: 0.67m	ENSNGALG00000000912	ENSNGALT00000001107	Gga_21	
Aca		GL343784: 0.01m	ENSACAG000000004127	ENSACAT000000004232	Aca_scaffoldGL343784	
Coelacanth		JH126981: 0.41m	ENSNLACG00000009253	ENSNLACT00000010582	Lch_scaffoldJH126981	
		JH126880: 0.43m	ENSNLACG00000009496	ENSNLACT00000010865	Lch_scaffoldJH126880	
Spotted gar		LG14: 4.38m	ENSLOCG00000003246	ENSLOCT00000003862	Loc_LG14	
		LG2: 59.70m	ENSLOCG00000013691	ENSLOCT00000016910	Loc_LG2	
		LG25: 7.68m	XP_015192403.1		Loc_LG25	okt-16
Zebrafish	kcnab1a	18: 34.39m	ENSNDARG000000008140	ENSNDART00000131478	Dre_18_kcnab1a	
	kcnab1b	2: 44.55m	ENSNDARG000000040741	ENSNDART00000112711	Dre_2_kcnab1b	
	novel	5: 67.49m	ENSNDARG000000074320	ENSNDART000001158257	Dre_5_kcnab3	assigned gene name in this study: kcnab3
	kcnab2b	23: 21.14m	ENSNDARG000000062134	ENSNDART000001152066	Dre_23_kcnab2b	
	kcnab2a	11: 40.86m	ENSNDARG000000087247	ENSNDART00000127292	Dre_11_kcnab2a	
Ciona savignyi		reflfig 49: 2.87m	ENSNSAVG000000010199	ENSNSAVT00000017508	Csa_ref49	
Ciona intestinalis		1: 1.09m	ENSNCING00000002683	ENSNCINT00000005438	Cin_1	
Fruitfly	Hk	X: 10.23m	FBgn0263220	FBtr0331336	Dme_X	
Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	LRCH1	13: 36.55m	ENSNG00000136141	ENST00000311191	Hsa_13_LRCH1	
	LRCH2	X: 115.11m	ENSNG00000130224	ENST00000317135	Hsa_X_LRCH2	
	LRCH3	3: 197.79m	ENSNG00000186001	ENST00000334859	Hsa_3_LRCH3	
	LRCH4	7: 100.57m	ENSNG00000077454	ENST00000310300	Hsa_7_LRCH4	
Chicken		1: 167.50m	ENSNGALG00000016990	ENSNGALT00000027449	Gga_1	
		4: 2.84m	ENSNGALG00000005882	ENSNGALT00000009454	Gga_4	
		9: 14.53m	ENSNGALG00000007595	ENSNGALT00000012281	Gga_9	
Chinese softshell turtle		NW_005852782: 1: 0.47m	XP_014424836.1		Psi_scaffoldNW005852782	nov-15
Coelacanth		NW_005820592: 1: 0.17m	XP_014351063.1		Lch_scaffoldNW005820592	okt-15
		JH128416: 0.04m	ENSNLACG00000002033	ENSNLACT00000002294	Lch_scaffoldJH128416	
		JH126941: 0.14m	ENSNLACG000000004912	ENSNLACT00000005576	Lch_scaffoldJH126941	
Spotted gar		LG17: 29.42m	ENSLOCG00000010453	ENSLOCT00000012872	Loc_LG17	
		LG7: 20.50m	ENSLOCG00000013621	ENSLOCT00000016825	Loc_LG7	
		LG14: 16.33m	ENSLOCG000000008472	ENSLOCT00000010330	Loc_LG14	
		LG2: 58.25m	ENSLOCG00000013372	ENSLOCT00000016511	Loc_LG2	
Zebrafish	lrch1	9: 25.29m	ENSNDARG000000078778	ENSNDART00000108629	Dre_9_lrch1	
	lrch2	5: 36.53m	ENSNDARG000000075580	ENSNDART00000112312	Dre_5_lrch2	
	lrch3	18: 3.48m	ENSNDARG00000100679	ENSNDART00000162754	Dre_18_lrch3	
	lrch4	7: 61.27m	ENSNDARG000000068258	ENSNDART00000098622	Dre_7_lrch4	
Ciona savignyi		reflfig 60: 1.16m	ENSNSAVG00000007899	ENSNSAVT00000013608	Csa_ref60	
Ciona intestinalis		HT000122: 41.82m	ENSNCING00000001443	ENSNCINT000000002827	Cin_scaffoldHT000122	
		8: 2.18m	ENSNCING00000018834	ENSNCINT000000031019	Cin_8	
C. elegans		X: 6.21m	WBGene00015779	C14F11.2	Cel_X	
Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	PCOLCE	7: 100.60m	ENSNG00000106333	ENST00000223061	Hsa_7_PCOLCE	
	PCOLCE2	3: 142.82m	ENSNG00000163710	ENST00000295992	Hsa_3_PCOLCE2	

Chicken		9: 10.04m	ENSGALG00000002623	ENSGALT00000004131	Gga_9	
Chinese softshell turtle		JH206417: 0.43m	ENSPSIG00000005273	ENSPSIT00000005739	Psl_scaffoldJH206417	
Coelacanth		NW_005824821.1: 1.15k JH127415: 0.66m	XP_00614067.2 ENSLACG000000011980	ENSLACT000000013705	Lch_scaffoldNW005824821 Lch_scaffoldJH127415	okt-15
Spotted gar		LG2: 58.21m LG14: 15.35m	ENSLOCG000000013361 ENSLOCG000000007866	ENSLCOT000000016500 ENSLCOT00000009559	Loc_LG2 Loc_LG14	
Zebrafish	pcolceb pcolcea pcolce2b pcolce2a	7: 50.57m 10: 22.82m 24: 5.84m 2: 8.23m	ENSDARG000000052057 ENSDARG000000056913 ENSDARG000000055575 ENSDARG00000008450	ENSDART000000073806 ENSDART000000122543 ENSDART000000077951 ENSDART000000156321	Dre_7_pcolceb Dre_10_pcolcea Dre_24_pcolce2b Dre_2_pcolce2a	
Amphioxus		NW_003101569.1: 1.72m	XP_002613768.1		Bfl_scaffoldNW003101569	okt-09
Ciona intestinalis		7: 4.60m	ENSCING00000008749	ENSCINT00000017831	Cin_7	
Ciona savignyi		reflig 2: 2.72m	ENSCSAVG00000009492	ENSCSAVT00000016313	Csa_ref2	
C. elegans		X: 16.46m	WBGene0003555	F38E9.2	Cel_X	

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	PER3 PER2 PER1	1: 7.78m 2: 238.24m 17: 8.14m	ENSG00000049246 ENSG00000132326 ENSG00000179094	ENST00000613533 ENST00000254657 ENST00000317276	Hsa_1_PER3 Hsa_2_PER2 Hsa_17_PER1	
Chicken		21: 0.29m 9: 4.98m	ENSGALG00000000573 ENSGALG000000005521	ENSGALT00000000797 ENSGALT00000008858	Gga_21 Gga_9	
Anole lizard		GL343400: 0.44m	ENSACAG000000004715	ENSACAT00000004802	Aca_scaffoldGL343400	
Coelacanth		JH126760: 0.48m JH129696: 0.14m NW_005821938: 0.13m	ENSLACG00000010219 ENSLACG00000004859 XP_014353703.1	ENSLACT000000025603 ENSLACT000000026265	Lch_scaffoldJH126760 Lch_scaffoldJH129696 Lch_scaffoldNW005821938	
Spotted gar		LG25: 4.78m LG14: 7.86m LG2: 58.19m	ENSLOCG000000002607 ENSLOCG000000004411 ENSLOCG00000013344	ENSLCOT00000003096 ENSLCOT00000005326 ENSLCOT00000016493	Loc_LG25 Loc_LG14 Loc_LG2	
Zebrafish	per3 per2 per1b per1a	11: 39.69m 2: 48.46m 7: 50.55m 10: 22.84m	ENSDARG00000010519 ENSDARG000000034503 ENSDARG00000012499 ENSDARG000000056885	ENSDART000000024304 ENSDART00000162741 ENSDART00000011082 ENSDART00000079459	Dre_11_per3 Dre_2_per2 Dre_7_per1b Dre_10_per1a	
Amphioxus		NW_003101570.1: 7.19m	XP_002614095.1		Bfl_scaffoldNW003101570	okt-09
C. elegans		II: 1.23m	WBGene0018572	F47F6.1b	Cel_II	
Fruitfly	per	X: 2.69m	FBgn0003068	FBtr0070477	Dme_X	

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	PIK3CB PIK3CD	3: 138.65m 1: 9.65m	ENSG000000051382 ENSG00000171608	ENST00000289153 ENST00000377346	Hsa_3_PIK3CB Hsa_1_PIK3CD	
Chicken		9: 5.09m 21: 3.47m	ENSGALG000000005505 ENSGALG000000002583	ENSGALT00000008754 ENSGALT00000004070	Gga_9 Gga_21	
Coelacanth		JH127245: 0.62m JH126562: 1.38m	ENSLACG000000013175 ENSLACG000000008900	ENSLACT00000015073 ENSLACT00000010174	Lch_scaffoldJH127245 Lch_scaffoldJH126562	
Spotted gar		LG14: 7.77m LG25: 12.52m	ENSLOCG000000004421 ENSLOCG000000006919	ENSLCOT00000005294 ENSLCOT00000008384	Loc_LG14 Loc_LG25	
Zebrafish	pk3cb pk3cd	15: 7.07m 23: 29.83m	ENSDARG000000057253 ENSDARG000000003250	ENSDART00000155268 ENSDART00000006120	Dre_15_pk3cb Dre_23_pk3cd	
Ciona savignyi		reflag 51: 0.72m	ENSCSAVG000000002578	ENSCSAVT00000004423	Csa_ref51	
Ciona intestinalis		1: 3.27m	ENSCING000000005192	ENSCINT00000010684	Cin_1	
Fruitfly	PIK92E	3R: 20.63m	FBgn0015279	FBtr0334643	Dme_3R	

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	PLOD1 PLOD2 PLOD3	1: 11.93m 3: 146.07m 7: 101.21m	ENSG000000083444 ENSG00000152952 ENSG00000106397	ENST00000196061 ENST00000282903 ENST00000223127	Hsa_1_PLOD1 Hsa_3_PLOD2 Hsa_7_PLOD3	
Chicken		21: 5.51m 9: 10.97m	ENSGALG000000004531 ENSGALG000000006783	ENSGALT00000007216 ENSGALT00000010972	Gga_21 Gga_9	
Anole lizard		GL343466: 0.52k	ENSACAG000000003968	ENSACAT00000004154	Aca_scaffoldGL343466	
Coelacanth		JH126880: 0.18m JH127305: 0.52m NW_005821060: 0.16m	ENSLACG000000005666 ENSLACG000000010598 XP_014352218.1	ENSLACT00000006437 ENSLACT00000012131	Lch_scaffoldJH126880 Lch_scaffoldJH127305 Lch_scaffoldNW005821060	okt-15
Spotted gar		LG25: 9.71m LG14: 14.92m LG2: 61.64m	ENSLOCG000000005408 ENSLOCG000000007750 ENSLOCG00000014098	ENSLCOT00000006599 ENSLCOT00000009432 ENSLCOT00000017419	Loc_LG25 Loc_LG14 Loc_LG2	
Zebrafish	plod1a plod2 plod3	8: 47.86m 24: 5.21m 23: 45.12m	ENSDARG000000059746 ENSDARG00000011821 ENSDARG000000076317	ENSDART000000083395 ENSDART000000050901 ENSDART000000085764	Dre_8_plod1a Dre_24_plod2 Dre_23_plod3	
Ciona intestinalis		1: 5.80m	ENSCING000000007889	ENSCINT00000016152	Cin_1	
Ciona savignyi		reflig 14: 0.73m	ENSCSAVG00000010250	ENSCSAVT00000017599	Csa_ref14	
Fruitfly	Plod	3L: 0.01m	FBgn0036147	FBtr0076187	Dme_3L	
C. elegans		II: 10.03m	WBGene0002497	F52H3.1.3	Cel_II	

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	RNF167 RNF13	17: 4.94m 3: 149.81m	ENSG00000108523 ENSG00000082996	ENST00000262482 ENST00000344229	Hsa_17_RNF167 Hsa_3_RNF13	
Chicken		9: 23.23m	ENSGALG00000010411	ENSGALT00000038908	Gga_9	
Chinese softshell turtle		JH206417: 0.24m	ENSPSIG000000004070	ENSPSIT00000004347	Psl_scaffoldJH206417	
Coelacanth		JH126981: 0.03m JH127211: 0.15m	ENSLACG000000001927 ENSLACG00000004836	ENSLACT00000002174 ENSLACT00000005601	Lch_scaffoldJH126981 Lch_scaffoldJH127211	
Spotted gar		LG2: 59.36m LG14: 2.34m	ENSLOCG00000013630 ENSLOCG00000001774	ENSLCOT00000016840 ENSLCOT00000002066	Loc_LG2 Loc_LG14	
Zebrafish	rnf167 rnf13	5: 67.36m 22: 35.16m	ENSDARG00000017636 ENSDARG00000019438	ENSDART00000009893 ENSDART00000130581	Dre_5_rnf167 Dre_22_rnf13	
Ciona savignyi		reflig 27: 1.85m	ENSCSAVG00000010680	ENSCSAVT00000018350	Csa_ref27	
Ciona intestinalis		1: 9.09m	ENSCING00000012489	ENSCINT000000023529	Cin_1	
Fruitfly	godzilla	3R: 6.38m	FBgn0037442	FBtr0081720	Dme_3R	
C. elegans		X: 15.04m	WBGene0007666	C18B12.4	Cel_X	

Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	STAG3 STAG1 STAG2	7: 100.18m 3: 136.34m X: 123.96m	ENSG000000066923 ENSG00000118007 ENSG00000101972	ENST00000426455 ENST00000383202 ENST00000218089	Hsa_7_STAG3 Hsa_3_STAG1 Hsa_X_STAG2	
Chicken		9: 0.20m 4: 15.53m 1: 129.36m	ENSGALG00000001277 ENSGALG00000009482 ENSGALG00000016716	ENSGALT00000001949 ENSGALT00000013823 ENSGALT00000026974	Gga_9 Gga_4 Gga_1	assigned family member name in synteny figure and tree: STAG4
Chinese softshell turtle		NW_005856240.1: 0.04m	XP_014431081.1		Psl_scaffoldNW005856240	nov-15
Xenopus		NW_016683390.1: 0.13m	NW_016683390.1		Xtr_scaffoldNW016683390	sep-16
Coelacanth		JH126651: 0.46m NW_005819275: 1.43m NW_005819502: 0.80m	ENSLACG00000009916 XP_014343661.1 XP_014345702.1	ENSLACT00000011357	Lch_scaffoldJH126651 Lch_scaffoldNW005819275 Lch_scaffoldNW005819502	okt-15 okt-15: assigned family member name in synteny figure and tree: STAG4
Spotted gar		LG2: 57.24m LG14: 14.32m LG7: 38.97m LG17: 1.98m	ENSLCOT00000013098 ENSDART00000142864 ENSLCOT00000014565 ENSLCOT00000002293	ENSLCOT00000016180 ENSLCOT00000009208 ENSLCOT00000017968 ENSLCOT00000002882	Loc_LG2 Loc_LG14 Loc_LG7 Loc_LG17	
Zebrafish	stag3 stag1b	14: 0.08m 24: 26.87m	XP_009305908.3 ENSDARG000000062137		Dre_14_1_stag3 Dre_24_stag1b	jun-17

	stag1a	2: 25.36m	ENSDARG00000061205	ENSDART00000088110	Dre_2_stag1a	
	stag2b	14: 28.28m	ENSDARG00000053668	ENSDART00000088094	Dre_14_2_stag2b	
	stag2a	5: 22.98m	ENSDARG00000011783	ENSDART00000137655	Dre_5_stag2a	
	st:ch211-269e2.1	9: 34.62m	ENSDARG00000074225	ENSDART00000112941	Dre_9_stag4	assigned gene name in this study: stag4
Ciona intestinalis		HT001139: 0.002m	ENSCING00000003096	ENSCINT00000006280	Cin_scaffoldHT001139	
Ciona savignyi		reflig 12: 0.001m	ENSCSAVG00000002890	ENSCSAVT00000004914	Csa_ref12	
Fruitfly	SA	2L: 0.01m	FBgn0020616	FBtr0079349	Dme_2L	
	SA-2	3L: 1.43m	FBgn0043865	FBtr0301788	Dme_3L	
C. elegans		V: 12.76m	WBGene00004738	F18E2.3	Cel_V	
Species	HGNC,ZFIN or FlyBase name	Chromosome/scaffold locations	Ensembl ID or NCBI accession number	Transcript ID	Assigned taxa ID	Comments/Annotation notes
Human	MINK1	17: 4.83m	ENSG00000141503	ENST00000355280	Hsa_17_MINK1	
	TNIK	3: 171.06m	ENSG00000154310	ENST00000284483	Hsa_3_TNIK	
	MAP4K4	2: 101.70m	ENSG00000071054	ENST00000324219	Hsa_2_MAP4K4	
Chicken		9: 19.06m	ENSGALG00000009298	ENSGALT00000015126	Gga_9	
		1: 132.94m	ENSGALG00000016781	ENSGALT00000008104	Gga_1	
Anole lizard		GL344055: 0.002m	ENSACAG00000003068	ENSACAT00000003141	Aca_scaffoldGL344055	manually edited
Coelacanth		JH127111: 0.09m	ENSLACG00000003498	ENSLACT00000003965	Lch_scaffoldJH127111	manually edited
		JH126697: 0.64m	ENSLACG00000011830	ENSLACT00000013534	Lch_scaffoldJH126697	
		NW_005819877: 0.23m	XP_014348138.1		Lch_scaffoldNW005819877	mar-17
Spotted gar		LG2: 58.84m	ENSLOGC00000013479	ENSLOCT00000016665	Loc_LG2	manually edited
		LG14: 13.73m	ENSLOGC00000007345	ENSLOCT00000008945	Loc_LG14	
		LG17: 29.71m	XP_015219596.1		Loc_LG17	apr-17
Zebrafish	mink1	5: 37.71m	ENSDARG000000035360	ENSDART00000135260	Dre_5_mink1	
	tnikb	24: 26.35m	ENSDARG00000009031	ENSDART00000097792	Dre_24_tnikb	
	tnika	2: 26.00m	ENSDARG00000056218	ENSDART00000051234	Dre_2_tnika	
	map4k4	9: 0.02m	XP_021344468.1		Dre_9_map4k4	jun-17
Ciona intestinalis		1: 3.08m	ENSCING00000005299	ENSCINT00000010911	Cin_1	
Ciona savignyi		reflig 20: 2.35m	ENSCSAVG00000008136	ENSCSAVT00000014039	Csa_ref30	
Fruitfly	msn	3L: 2.55m	FBgn0010909	FBtr0072956	Dme_3L	
C. elegans		X: 10.42m	WBGene00003247	ZC504.4c	Cel_X	