

Table 9. Genes induced 100% or more at 30 or 45 min

Gene ID	Known flagellar protein	FABP	Known induced message	Human ciliary proteome	t=30 (%)	t=45 (%)	t=120 (%)	Protein description
152411					492.99	215.92	8.84	hypothetical protein
152476					158.73	74.96	-10.42	hypothetical protein
152888					110.40	62.27	1.76	hypothetical protein
152954					255.78	93.46	15.25	hypothetical protein
153027	X			X	175.08	141.24	1.52	nucleoside diphosphate kinase
153565					215.40	37.33	-14.22	CAH6 carbonic anhydrase (chloroplast)
153566					164.91	115.85	-18.52	hypothetical protein
153592					176.88	79.07	-13.47	hypothetical protein
153593					293.91	209.62	14.90	novel
153658		X	X		220.27	157.04	-1.71	testis expressed gene NYD-SP28
153853		X	X		196.25	75.98	7.61	novel
153940					152.48	31.91	-7.81	novel
154005	X				480.27	138.69	0.56	T-complex protein 1 epsilon subunit CCT5
154182					165.43	43.94	45.27	novel, KH domain
154226					249.99	56.24	-17.53	EF-hand protein
154231					208.96	56.70	46.69	no homology
154393	X	X	X		168.36	81.09	5.86	IFT52/BLD1
154652	X	X		X	142.16	43.96	-5.14	IFT80/Che-2
154693					429.81	258.94	34.09	no homology
154954					115.69	48.13	5.47	novel
155018					173.93	127.25	7.47	PI3 kinase
155023	X				1382.52	151.30	6	HSP70A (flagellar)
155083					367.92	168.46	-15.56	no homology
155160		X			282.70	119.66	14.73	novel
155242					128.92	60.59	42.36	CPN2 tubulin folding cofactor B
155336					385.30	148.08	21.32	no homology
155586	X	X		X	207.12	129.09	-3.74	PF2 dynein regulatory complex, Growth arrest protein 8
155801					126.71	183.47	-3.02	novel
155853					1266.57	436.70	-21.79	HSP22B (cytosolic)

155875				1853.32	860.83	5.12	HSP22A (cytosolic)
155958				258.36	53.31	32.11	AAA ATPase
155967	X			218.21	116.10	46.04	T-complex prot 1 delta subunit, CCT4
155990				317.95	140.30	-17.98	no homology
156034				183.87	83.64	-1.67	no homology
156038				506.54	188.67	13.91	glucan 1,4-alpha-glucosidase
156043		X	X	116.06	48.75	9.94	MIP-T3 microtubule-interacting protein
156201				154.62	69.47	3.32	no homology
156214	X	X		183.92	37.02	-1.71	IFT20
156232	X			647.07	299.32	18.47	FMG1A
156234	X			156.09	74.42	22.96	FMG1A-like
156354				138.18	38.46	29.05	cytochrome p450 family
156724				452.53	226.27	44.25	Reptin
156757				176.86	91.89	-3.34	no homology
156769	X			365.47	135.25	33.76	T-complex protein 1 alpha subunit CCT1
156828				123.32	66.01	-13.58	hypothetical protein
156865				308.67	187	63.77	no homology
156948	X	X	X	232.55	56.82	19	IFT57
156969				500.02	221.96	27.80	calcium-binding EF hand protein
157068	X			466.31	152.34	52.90	T-complex protein 1 beta subunit CCT2
157193				115.91	102.96	-13.63	novel
157216	X	X		144.01	67.19	11.71	dynein intermediate chain IC138
157312				237.91	57.59	4.55	novel, putative phosphatase
157731				314.14	55.55	40.04	DnaJ chaperone
157798	X		X	127.93	33.57	1	ODA3
157896		X		172.83	130.06	-1.73	novel
157940		X		297.77	145.75	-0.56	Tcte1, t-complex testis expressed
157967	X	X	X	382.67	240.87	30.47	RSP4 flagellar radial spoke protein
158148				152.02	45.29	2.68	novel, putative cytochrome p450
158210	X		X	434.08	243.83	116.95	beta tubulin
158418				170.16	113.35	16.29	CHLRE_180190 Rab GTPase
158440				240.71	55.73	10.27	no homology
158643				101.23	76.69	28.22	novel

158809				312.27	133.43	21.45	novel
158863	X	X	X	134.99	49.99	-2.50	Qilin (zebrafish PKD) KIAA0643 protein
158864				239.19	96.59	-11.41	novel
158900				253.65	72.95	23.07	novel ATP binding
158903	X			234.68	139.52	35.07	novel
159012				138.74	60.23	2.15	novel
159022	X	X	X	106.16	35.44	-7.71	IFT81
159126				109.98	60.37	6.56	novel
159197	X	X	X	223.34	55.54	7.67	DIP13 deflagellation inducible gene
159203			X	250.33	91.21	-6.86	S926 upregulated message
159247		X	X	334.95	35.71	-20.73	novel
159281	X			265.12	128.04	36.99	FLA14 outer dynein arm light chain LC8
159506				525.19	206.09	103.04	no homology
159624				186.81	37.02	75.96	novel
159673				286.31	94.93	-3.32	novel
159749	X	X	X	212.19	180.48	37.70	hypothetical protein Q9NQC8
159848				144.16	43.34	1.45	novel
159948				120.52	43.68	-38.04	novel
160014				271.79	200.16	3.91	novel
160067				353.50	94.99	60	novel
160123				280.30	209.34	29.38	Hsp100 family chaperone
160204				149.61	31.50	12.33	novel
160297	X	X		371.12	219.34	83.35	FABP CG15429 (prototypical cilia class)
160572				197.53	57.03	-1.68	novel
160880			X	159.01	84	6.24	rhabdoid tumor deleted region protein 1
160881				126.56	45.41	22.13	HSP22F
160936				159.66	146.61	-2.10	novel
160952	X			676.09	213.18	43.84	ODA14
160953				172.70	45.41	22.13	HSP22E
160955				148.37	106.98	10.39	novel
160959				177.04	29.33	-29.08	novel
161089				129.58	90.76	20.68	UBC4 E2 ubiquitin conjugating enzyme
161174				266.08	105.31	12.98	novel

161213				268.67	128.11	2	centrin-like EF-hand protein	
161490			X	119.95	54.42	11.10	novel	
161556				481.47	163.93	15.97	unknown P-loop protein	
161600				100.05	45.07	6.85	novel	
161728				350.65	113.56	-8.83	novel P-loop protein	
161985				140.90	60.60	2.23	novel	
162279	X	X	X	143.86	56.65	6.06	RSP3	
162390				425.99	124.27	34.97	helix-turn-helix transcription factor	
162417			X	477.88	175.80	78.92	c-myc binding protein MYCBP/AMY-1	
162425				125.61	73.73	-4.88	novel	
162449		X		178.70	91.19	-3.76	novel	
162472				113.29	55.28	-6.58	novel	
162692				200.82	87.98	14.62	novel	
162703		X	X	X	724.23	436.64	87.70	PACRG parkin co-regulated gene
162999				154.73	83.90	57.87	DnaJ protein	
163048				145.60	53.08	23.77	EF1G elongation factor	
163083				197.86	52.69	6.72	novel	
163193		X	X	161.35	80.24	-6.28	FABP CG4525 (compartment class)	
163279				134.65	84.89	-13.89	novel	
163322				144.14	71.86	26.63	novel	
163462	X			414.85	187.67	23.46	T-complex protein 1 zeta subunit CCT6	
163587	X			209.71	120.55	64.97	T-complex protein1 theta subunit CCT8	
163755				196.05	89.62	67.90	novel	
163765				300	80.53	-15.66	novel	
164079				241.56	101.96	74.68	SKP1 E3 ubiquitin ligase	
164100	X	X		170.31	81	4.73	ODA6	
164108				137.16	44.60	16.23	plasma membrane Ca-transport ATPase 9	
164110				132.17	51.83	-15.68	novel	
164149		X	X	117.95	77.94	6.19	novel	
164270				207.92	101.28	14.40	novel	
164295	X	X		159.93	88.85	15.33	ODA12	
164296	X			374.62	145.98	93.62	axonemal dynein light chain DNAL4	
164307	X	X		316.27	133.37	-5.76	DLC3 outer arm light chain 3	

164442				204.79	73.43	35.41	no homology
164501				142.10	74.73	43.15	novel
164561	X	X		129.22	93.45	24.46	novel
164568	X			255.91	123.45	25.82	zinc finger, MYND domain containing protein
164620	X		X	345.71	192.45	114.43	TUA1 alpha tubulin
164722	X		X	430.58	330.93	40.97	ODA13 outer dynein arm docking complex protein
164832				112.69	79.80	14.56	novel
164954				126.28	97.08	16.78	novel
164979	X	X		221.01	104.70	30.23	IFT74/72
165023	X			510.23	167.20	32.89	T-complex protein 1 eta subunit CCT7
165057		X		576.51	136.48	-2.35	FABP CG31623 (motility class)
165138				185.83	109.37	1.81	novel
165606		X	X	389.99	208.84	67.13	hypothetical protein Q9H1X1
165719		X		106.92	90.20	13.70	novel
165743				114.97	56.46	-5.46	novel
165780				545.77	38.01	-13.90	CLPB2 chaperone Hsp101 type
166022				149.81	96.61	38.17	novel
166039		X		426	172.13	6.85	FABP CG11035 (prototypical cilia class) DnaJ protein
166074				286.01	127.81	11.13	novel EF hand protein
166081				209.37	62.50	-19.28	novel ATP-binding
166131	X	X	X	118.52	43.45	31.97	PF20 central pair protein
166294				116.92	145.14	-2.50	novel
166301				142.13	34.39	-27.52	novel
166390				202.10	86.01	27.74	novel
166776				169.57	57.35	8.34	HSP22C
166783				185.38	96.35	11.59	novel
166839				264.39	61.81	10.16	SPT2 serine palmitoyltransferase
166849				159.42	89.85	4.34	novel
166905				177.27	96.70	5.20	novel
166967				186.34	186.79	27.75	novel
166968				121.83	79.78	-7.20	CHLRE_550086 Rab-type G protein
167072				102.40	65.46	20.36	novel
167154				102.70	35.13	24.32	novel

167190		X			88.59	105.02	-14.73	Tbx1
167311					222.15	55.70	4.70	HSP70E
167565	X				248.19	90.70	-0.66	KLP1 central pair kinesin
167670					121.97	13.23	31.83	novel, sterol c14-reductase like
167696					124.48	83.25	9.49	novel
167776		X	X	X	110.06	37.10	33.84	Dpy-30
168135		X			319.14	143.27	29.38	FABP CG10064 (motility class),WD40 repeats
168312		X			197.51	103.01	18.12	FABP
168339		X	X		443.10	126.61	-7.46	FABP CG18675 (motility class)
168434		X			269.73	135.18	6.97	TSARG2 testis & spermatogenesis prot. 2
168471					338.39	95.90	89.74	no homology
168546					80.11	203.34	27.97	novel
168596					275.69	76.52	38.48	cytochrome p450-like
168600		X		X	338.88	65.74	-6.63	nasopharyngeal epithelia specific protein
168602	X	X			337.65	246.55	26.75	DLC1 outer arm light chain 1
168662					402.16	53.02	20.39	novel
168675	X	X			377.18	152.45	26.45	Rib72 flagellar pf ribbon protein
168790	X			X	610.32	166.01	14.31	RSP23 p61 nucleoside diphosphate kinase
168881	X	X		X	108.69	73.91	8.98	Tektin
168906					349.32	121.42	29.29	no homology
168911					271.06	153.50	12.28	novel WD-40 protein
168935					135.04	78.06	-0.89	MAK kinase
168989					272.98	189.69	26.96	heat shock protein
169068					164.29	86.32	9.11	novel
169116					222.48	92.28	15.73	Pontin
169215					168.84	88.41	-6.15	novel
169301	X			X	1759.65	356.88	10.26	HSP90A (flagellar)
169310					123.35	69.96	12.28	novel
169383	X	X			165.46	54.52	26.03	IDA4
169414					158.50	102.92	48.36	phosphatase
169511					169.75	59.21	-3.15	HSP70B
169604					349.35	106.49	28.33	no homology
169795	X	X			251.48	142.96	15.57	DLC7a outer arm light chain 7

169905	X		X	X	418.67	214.58	97.42	TUB1 beta tubulin
169971	X	X			464.30	333.20	71.19	DLC7b dynein light chain, roadblock-like
169998					291.16	166.31	22.81	novel
170001					377.83	172.12	24.71	no homology
170055	X		X	X	418.67	214.58	97.42	TUB2 beta tubulin
170098					119.65	105.06	12.65	HSP70-like protein
170205					110.37	30.37	-38.62	novel
170392					490.28	98.97	0.03	TULP2, Tubby-like protein 2
170435	X			X	120.21	30.94	-29.68	AKAP-associated sperm protein
170693					179.30	73.50	22.10	CPN10 chaperone
170694	X	X			270.91	119	0.63	Rib43a flagellar pf ribbon protein
170718					211.70	64.45	50.86	myo-inositol-1-phosphase synthase
170981	X	X			248.61	81.67	-9.67	Tctex2b, homology to outer arm light chain lc2
171050					100.70	74.86	7.61	novel
171096	X			X	367.77	123.03	-4.21	PF16 flagellar central pair protein, SPAG6
171102		X	X	X	431.10	197.22	16.93	Mus musculus testis-specific cDNA AK017056
171153					123.45	90.10	-16.73	novel
171156					948.01	324.86	18.60	novel
171226	X	X			164.74	45.98	-8.08	Tctex1 inner arm dlc
171275					338.27	237.46	12.93	no homology
171680	X	X			289.52	139.73	23.18	ODA9 flagellar outer arm IC78
171729					86.56	147.55	19.07	novel
171752					260.13	57.31	37.90	SC5D delta7-sterol-C5 desaturase
171782	X	X			243.78	57.89	31.03	ARL6/BBS3
171911		X	X		153.40	43.84	-9.11	meiosis-specific nuclear structural protein
172025					416.26	171.33	4.41	no homology

Entries in bold indicate genes with prior information about flagellar association, based on localization, comparative genomics, induction or proteomics, as indicated in columns 2-5. In the protein description column, FABP stands for flagellar basal body proteome.