

Gene Cluster ID	Atp6v0e	
Drosophila melanogaster gene	VhaM9.7-b (CG7625)	
FlyBase ID	<a href="#">FBgn0028663</a>	
Predicted function	ATPase, H+ transporting, V0 subunit e	
Atp6v0e CLEAR element conservation:		
	<u>5' / 5' UTR</u>	<u>5' / 5' UTR</u>
Dmel\	GGGACATGTCCGTCATGTGATATTCGTTGCTC	
Mdom\	cattatatttaaTCATGTGAcacacgacgaca	
Ccap\	tcccatgggtgaTCATGTGAcatttgcgtagc	
Gmor\	gctctttacgcaTCATGTGAtaattagtaatt	
Llon\	aacgatttcgggGCACATGAcgtgtgacgtca	
Ppap\	gaaacaaaatagTCATATGAttaatcgaccga	
Agam\	-----	CCGTGTACGCCTGTTCATGTGATATTTTCTCAT
Aara\	-----	CCGTGTACGCCTGTTCATGTGATATTTTCTCAT
Aqan\	-----	CCGTGTACGCCTGTTCATGTGATATTTTCTCAT
Achr\	-----	TGCTTGTGACTGTTCATGTGATATTTTCTCTT
Aepi\	-----	TGTTCTGCTCTGTTCATGTGATATTTTCTCTT
Amin\	-----	TGTTCTGGTCTGTTCATGTGATATTTTCTCTT
Afun\	-----	TGTTCTGGTCTGTTCATGTGATATTTTCTCTT
Aste\	-----	GTCCGTGGTCTGTTCATGTGATATTTTCTCTT
Adir\	-----	TGTTCTTGTCTGTTCATGTGATATTTTCTGCC
Anil\	-----	TGGTACAAGCTGTTCATGTGATGTTTCTCTG
Aalb\	-----	ACGTCACGTCTGTTCATGTGATGTTTCTCTTC
Adar\	-----	ACGTCACGGCTGTTCATGTGATGTTTCTCTTC
Cqui\	GCGTTTGAAACGTCACATGATGAGTGACGCGT	CACCCGAACCTGTTCATGTGATATTTTCTCAC
Aaeg\	CCACCAAGGACGTCACATGATGACTCACTCA	CACCGAGACCTGTTCATGTGATTATTATTCTT
Mdes\	-----	GCGCGCTCACTGTTCATGTGATTGTCATGAGAA
Bmor\	TATCTATGACAGTCATATGACTCTCGGTGACA	
Msex\	-----	
Hmel\	ATCCGATAATTGTCATATGACTACGACATTCA	
Dple\	CCGATTCTCATGTCATATGACTGCCAATGTTTC	
Pxyl\	ATTCTACGAATGTCATATGACTTAAACAGTG	
Tcas\	GTCCTGTGCGCATCATATGACTTTGACACTTC	
Dpon\	TCCCCTACCTAGTCATATGATTTTGACGTCTA	
		<u>intron2</u>
		GTTCAATCGGAAACACATGACAACAAACACTA
		TTCTGTTACTAGTCATGTGATTAAATTATGGG
Amel\	AAATCGAATATTCACGTGATTACATTTACT	-----
Aflo\	AAATCGAGATATTCACGTGATTACGATTACT	-----
Bter\	AAATCGAGATATTCACGTGACTCTCATTTACA	-----
Bimp\	AAATCGAGATATTCACGTGACTCCCATTTACA	-----

Mrot\ GAACTGAGCGCTTCACGTGATCTGTTTGTGTC -----  
Aech\ CAATCGATGTGTCACGTGAATAGTACAAAGA ACAAAGAATCTCTCATGTGATCCTTTCGATAC  
Acep\ CAATCGATGTGTCACGTGAATAGTACAAAGA ACAAAGAATCTCTCATGTGATCCTTTCATAC  
Cflo\ TAATCGATGTA-TCACGTGAACAATACGAAGA ACGAAGATTCTCTCATGTGATCCTCCCAGTTT  
Pbar\ AGATCAATGTGTCACGTGAACAGTACGAAGA ACGAAGATTCTCTCATGTGATCCTTCCAGTTT  
Sin\ TGATCGATGTGTCACGTGAATGGTACGAGGA ACGAGGAGTCTCTCATGTGATTCTTTCGTATAT  
Lhum\ GAATCGATATGTCACGTGAATCAGGCGAAGG GCGAAGGTACTCTCATGTGATCCTCCCAGTTT  
Hsal\ GAATCGATATA-TCACGTGAAGATCTCTCATG CGTGAAGATCTCTCATGTGATCCTTCCCGTTT  
  
Ngir\ ----- TGCGCATGTTTCA TCATGTGACAGAAAGCAGAC  
Nlon\ ----- TGCGCATGTTTCA TCATGTGACAGAAAGCAGAC  
Nvit\ ----- TGCGCATGTTTCA TCATGTGACAGAAAGCAGAC  
  
Lful\ ----- tttctagtaata TCATGTGAtccgttcgcaga tgtaattatcgtTCATATGAaagttttaatta  
  
Phum\ aaatattttgaa TCACATGA tttcgtctgctt  
Dpul\ caaagtttagctg TCACATGA cacaagatatct

### Atp6v0e gene structure comparisons:

(Click on orthologs for genomic, mRNA and protein sequence informations)

Key: UTR region, CDS region

Order	Species	Atp6v0e orthologs	5'exon		intron	exon	intron	exon3'		Extended CLEAR region	Position	bps from TSS
Diptera (Drosophilidae)	<i>Drosophila_melanogaster</i>	<a href="#">Dmel\VhaM9.7-b</a>	142	95	70	48	68	127	303	gggacatgccgTCATGTGAtattcgttgctc	5'UTR	38
Diptera (Muscidae)	<i>Musca_domestica</i>	<a href="#">Mdom\Atp6v0e</a>		95	96	48	74	130		cattatatttaaTCATGTGAcacacgacgaca	5'UTR?	>-144
Diptera (Tephritidae)	<i>Ceratitis_capitata</i>	<a href="#">Ccap\Atp6v0e</a>	134	95	81	48	61	130	363	tcccatgggtgaTCATGTGAcatttcgctagc	5'UTR?	-24
Diptera (Glossinidae)	<i>Glossina_morsitans</i>	<a href="#">Gmor\Atp6v0e</a> <a href="#">TMP002992</a>		95	57	48	77	145		gctctttacgcaTCATGTGAtaattagtaatt	5'UTR?	>-83
Diptera (Psychodidae)	<i>Lutzomyia_longipalpis</i>	<a href="#">Llon\Atp6v0e</a>	116	98	90	48	66	148		aacgatttcgggGCACATGAcgtgtgacgtca	5'UTR	22
	<i>Phlebotomus_papatasi</i>	<a href="#">Ppap\Atp6v0e</a>	26	98	71	48	59	145		gaaacaaaatagTCATATGAttaatcgaccga aattctcacctTCACGTGAtttttcttacag	5' intron1	>-32 >176
Diptera (Culicidae)	<i>Anopheles_gambiae</i>	<a href="#">Agam\Atp6v0e</a> <a href="#">AGAP003588</a>	129	98	91	48	76	142	440	cctgtacgcctgTCATGTGAtattttctcat	5'UTR	6
	<i>Anopheles_arabiensis</i>	<a href="#">Aara\Atp6v0e</a>		98	85	48	77	142		cctgtacgcctgTCATGTGAtattttctcat	5'UTR?	>-123
	<i>Anopheles_quadriannulatus</i>	<a href="#">Aqan\Atp6v0e</a>		98	86	48	76	142		cctgtacgcctgTCATGTGAtattttctcat	5'UTR?	>-124

	<i>Anopheles_christyi</i>	<a href="#">Achr\Atp6v0e</a>		98	64	48	77	142			tgcttgtagctgTCATGTGAtatttttctctt	5'UTR?	>-123	
	<i>Anopheles_epiroticus</i>	<a href="#">Aepi\Atp6v0e</a>		98	74	48	78	142			tgttctgctctgTCATGTGAtatttttctctt	5'UTR?	>-105	
	<i>Anopheles_minimus</i>	<a href="#">Amin\Atp6v0e</a>		98	78	48	90	142			tgttctggctgTCATGTGAtatttttctctt	5'UTR?	>-112	
	<i>Anopheles_funestus</i>	<a href="#">Afun\Atp6v0e</a>		98	74	48	87	142			tgttctggctgTCATGTGAtatttttctctt	5'UTR?	>-110	
	<i>Anopheles_stephensi</i>	<a href="#">Aste\Atp6v0e</a>		98	79	48	75	142			gtccgtggctgTCATGTGAtatttttctctt	5'UTR?	>-119	
	<i>Anopheles_dirus</i>	<a href="#">Adir\Atp6v0e</a>		98	70	48	80	145			tgttctgtctgTCATGTGAtatttttctgcc	5'UTR?	>-120	
	<i>Anopheles_nili</i>	<a href="#">Anil\Atp6v0e</a>		98	74	48	74	142			tggtacaagctgTCATGTGAgtttttctctg	5'UTR?	>-119	
	<i>Anopheles_albimanus</i>	<a href="#">Aalb\Atp6v0e</a>		98	91	48	91	136			acgtcactgctgTCATGTGAgtttttctctc	5'UTR?	>-116	
	<i>Anopheles_darlingi</i>	<a href="#">Adar\Atp6v0e</a>		98	86	48	85	133			acgtcacggctgTCATGTGAgtttttctctc	5'UTR?	>-122	
	<i>Aedes_aegypti</i>	<a href="#">Aaeg\Atp6v0e</a> <a href="#">AAEL010819</a>	48+82+5	98	70	48	4734	151	674		ccaccaaggacgTCACATGAgtgactcactca caccgagacctgTCATGTGAtattattttct	5' 5'UTR	-26 4	
	<i>Culex_pipiens_qui.</i>	<a href="#">Cqui\Atp6v0e</a> <a href="#">CPIJ013144</a>		98	91	48	71	148	422		gcgtttgaaacgTCACATGAgtgagtcacgcgt caccggaacctgTCATGTGAtatttttctcac	5' 5'	>-129 >-173	
Diptera (Cecidomyiidae)	<i>Mayetiola_destructor</i>	<a href="#">Mdes\Atp6v0e</a>		92	82	48	90	145			gcgcgctcactgTCATGTGAattgcatgagaa	5'UTR?	>-164	
Lepidoptera	<i>Bombyx_mori</i>	<a href="#">Bmor\Atp6v0e</a>	84	98	83	48	1579	88	ND	30	449	tatctatgacagTCATATGActctcggtgaca	5'	>-26
	<i>Manduca sexta</i>	<a href="#">Msex\Atp6v0e</a>		ND	ND	ND	ND	88	7377	33	351	ND		
	<i>Danaus_plexippus</i>	<a href="#">Dple\Atp6v0e</a>		98	68	48	476	88	ND	ND		ccgattctcatgTCATATGActgccaatgttc	5'	>-109
	<i>Heliconius_melpomene</i>	<a href="#">Hmel\Atp6v0e</a>		98	74	48	873	88	ND	ND		atccgataattgTCATATGActacgacattca	5'	>-102
	<i>Plutella_xylostella</i>	<a href="#">Pxy\Atp6v0e</a>	35	98	88	48	965	88	3949	24		attctacgaatgTCATATGActtaaaaacagtg tagttaatgtgcTCACATGAtggtcataagtc	5' intron2	-67 447
Strepsiptera	<i>Mengenilla_moldrzyki</i>	<a href="#">Mmol\Atp6v0e</a>		98	45	48	49	88	57	21		ND		
Coleoptera	<i>Tribolium_castaneum</i>	<a href="#">Tcas\Atp6v0e</a> <a href="#">LOC662403</a>	79	98	61	48	46	88	53	18	140	gtcctgtgcgcaTCATATGActttgacacttc gttcaatcggaTCACATGAcaacaacacta	5' intron2	-17 322
	<i>Dendroctonus_ponderosae</i>	<a href="#">Dpon\Atp6v0e</a>	81	98	61	48	678	88	133	27	272	tcgttgaatcgaTCACGTGAatgacaactccc tcccctacctagTCATATGAttttgacgteta ttctgttactagTCATGTGAttaaaattatggg	5' 5' intron2	-27 -6 326
Hymenoptera	<i>Apis_mellifera</i>	<a href="#">Amel\Atp6v0e</a> <a href="#">GB18948</a>	103	98	154	48	86	88	105	36	585	aaatcgaaatatTCACGTGAatcacatttact	5'UTR	20
	<i>Apis_florea</i>	<a href="#">Aflo\Atp6v0e</a>		98	151	48	77	88	101	42		aaatcgagatatTCACGTGAatcacgattact	5'	>-74

	<i>Bombus_terrestris</i>	<a href="#">Bter\Atp6v0e</a>	192	98	128	48	81	88	107	24	375		aaatcgagataTCACGTGActctcatttaca	5'UTR	100
	<i>Bombus_impatiens</i>	<a href="#">Bimp\Atp6v0e</a>		98	123	48	80	88	103	24			aaatcgagataTCACGTGActcccatttaca	5'UTR?	>-84
	<i>Megachile_rotundata</i>	<a href="#">Mrot\Atp6v0e</a>		98	173	48	74	88	94	21			gaactgagcgctTCACGTGAtctgtttgtgtc	5'	>-82
	<i>Acromyrmex_echinatior</i>	<a href="#">Aech\Atp6v0e</a>		107	261	48	76	88	181	18			tcaatcgatgtgTCACGTGAatagtacaaaga acaaagaatctcTCATGTGAtcctttcgatac	5' 5'	>-121 >-96
	<i>Atta_cephalotes</i>	<a href="#">Acep\Atp6v0e</a>		107	268	48	82	88	169	21			tcaatcgatgtgTCACGTGAatagtacaaaga acaaagaatctcTCATGTGAtcctttcaatac	5' 5'	>-113 >-88
	<i>Solenopsis_invicta</i>	<a href="#">Sinv\Atp6v0e</a>	122	107	254	48	82	88	285	21	139		gtgatcgatgtgTCACGTGAatgtgtacgagga acgaggagtctcTCATGTGAtctttcgttat	5' 5'UTR	-14 13
	<i>Camponotus_floridanus</i>	<a href="#">Cflo\Atp6v0e</a>		107	244	48	84	88	64	21			ttaatcgatgtaTCACGTGAacaatacgaaga acgaagattctcTCATGTGAtcctccagttt	5' 5'	>-132 >-107
	<i>Harpegnathos_saltator</i>	<a href="#">Hsal\Atp6v0e</a>		98	283	48	81	88	161	24			cgaatcgatataTCACGTGAagatctcTCATGTGAtccttccgttt	5'	>-108
	<i>Pogonomyrmex_barbatus</i>	<a href="#">Pbar\Atp6v0e</a>		107	474	48	83	88	165	21			cagatcaatgtgTCACGTGAacagtacgaaga acgaagattctcTCATGTGAtcctccagttt	5' 5'	>-131 >-106
	<i>Linepithema_humile</i>	<a href="#">Lhum\Atp6v0e</a>		107	261	48	87	88	161	21			cgaatcgatatgTCACGTGAatcaggcgaagg gcgaaggactcTCATGTGAtcctccagttt	5' 5'	>-136 >-111
	<i>Nasonia_giraulti</i>	<a href="#">Ngir\Atp6v0e</a>		98	99	48	76	88	222	33			tgcgcatgttcaTCATGTGAcagaaagcagac	5'	>-83
	<i>Nasonia_longicornis</i>	<a href="#">Nlon\Atp6v0e</a>		98	99	48	76	88	221	33			tgcgcatgttcaTCATGTGAcagaaagcagac	5'	>-83
	<i>Nasonia_vitripennis</i>	<a href="#">Nvit\Atp6v0e</a> <a href="#">NV10516</a>	25	98	99	48	73	88	223	33			tgcgcatgttcaTCATGTGAcagaaagcagac	5'	>-59
Hemiptera	<i>Acyrtosiphon_pisum</i>	<a href="#">Apis\Atp6v0e</a> <a href="#">LOC100571036</a>	440	98	67	48	2880	88	65	18			tactaccacgTCATATGAttgccgtcaa	intron 2	2344
	<i>Rhodnius_prolixus</i>	<a href="#">Rpro\Atp6v0e</a>		98	71	48	140	88	1483	30			ND		
Phthiraptera	<i>Pediculus_humanus</i>	<a href="#">Phum1Atp6v0e</a> <a href="#">PHUM238330</a>		98	70	48	124	94					aaatatttgaaTCACATGAttcgtctgctt	5'	>-99
Odonata	<i>Ladona_fulva</i>	<a href="#">Lful\Atp6v0e</a>		98	69	48	286	88	63	33			tttctagtaataTCATGTGAtccgttcgcaga tgtaattatcgTCATATGAaagttttaatta	5' intron2	>-49 >260
Crustacea	<i>Daphnia_pulex</i>	<a href="#">Dpul\Atp6v0e</a>	107	98	70	48	210	109			108		caaagttagctgTCACATGAcacaagatatct	5'	-1
Aracnida	<i>Ixodes_scapularis</i>	<a href="#">Isca\Atp6v0e</a> <a href="#">ISCW018653</a>		98	57	48	63	94					ND		
	<i>Homo_sapiens</i>	<a href="#">ATP6V0E1</a>		104	10810	48	24415	94			36				
Cnidaria	<i>Nematostella_vectensis</i>	<a href="#">NEMVEDRAFT_v1g192225</a>	18	113	318	48	1144	106			17				
Placozoa	<i>Trichoplax_adhaerens</i>	<a href="#">TRIADDRAFT_63123</a>	16	98	989	48	148	106			15				
