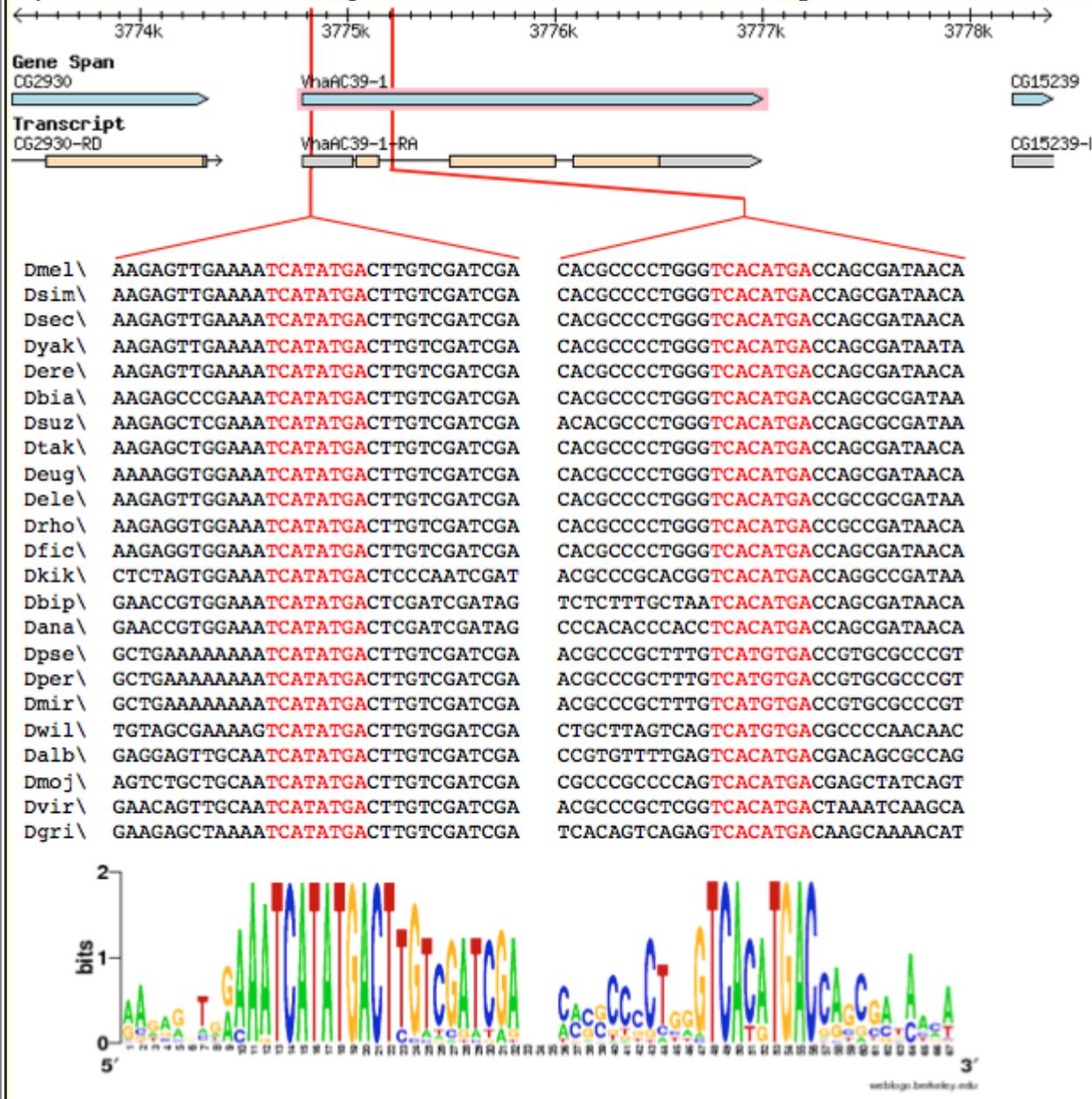


Gene Cluster ID	Atp6v0d
Drosophila melanogaster gene	VhaAC39-1 (CG2934)
FlyBase ID	FBgn0028665
Predicted function	ATPase, H⁺ transporting, lysosomal 38kDa, V0 subunit d
Protein size	350 amino acids
Cytogenetic map	X:3F4-3F4
Gene sequence location	X:3774773..3777004 [+]
Dmel CLEAR sequence	TCATATGA; TCACATGA
CLEAR sequence locations	X:3774820..3774827; X:3775210..3775217
Drosophila Atp6v0d paralog	VhaAC39-2

FlyBase Vha39-1 (CG2934) gene model & CLEAR element (red) positions:



Drosophila Atp6v0d gene structure comparison:

Key: UTR region, CDS region

Species	Atp6v0d orthologs	5'exon		intron	exon	intron	exon3'		Extended CLEAR region	Position	bps from TSS
<i>Drosophila_melanogaster</i>	Dmel\VhaAC39-1	249	127	338	509	90	417	502	aagagttgaaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR intron1	47 437
<i>Drosophila_simulans</i>	Dsim\GD16660*		127	348	509	90	417		aagagttgaaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_sechellia</i>	Dsec\GM12314		127	348	509	90	417		aagagttgaaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_yakuba</i>	Dyak\GE16319		127	384	509	70	417		aagagttgaaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataata	5'UTR? intron1	
<i>Drosophila_erecta</i>	Dere\GG18679		127	369	509	90	417		aagagttgaaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_biarmipes</i>	Dbia\VhaAC39-1		127	658	509	357	417		aagagccccgaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaa	5'UTR? intron1	
<i>Drosophila_suzukii</i>	Dsuz\VhaAC39-1		127	671	509?	ND	417?		aagagctcgaaaTCATATGActtgatcgacga acagccctgggTCACATGAccagcgataaa	5'UTR? intron1	
<i>Drosophila_takahashii</i>	Dtak\VhaAC39-1		127	660	509	357	417		aagagctggaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_eugracilis</i>	Deug\VhaAC39-1		127	536	509	162	417		aaaaggtggaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_elegans</i>	Dele\VhaAC39-1		127	899	509	731	417		aagagttgaaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaa	5'UTR? intron1	
<i>Drosophila_rhopaloea</i>	Drho\VhaAC39-1		127	734	509	350	417		aagaggtggaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_ficusphila</i>	Dfic\VhaAC39-1		127	579	509	279	417		aagaggtggaaaTCATATGActtgatcgacga cacgccctgggTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_kikkawai</i>	Dkik\VhaAC39-1		127	539	509	76	417		ctctagtggaaaTCATATGActccaatcgat acgcccgacggTCACATGAccagcgataaa	5'UTR? intron1	
<i>Drosophila_bipectinata</i>	Dbip\VhaAC39-1		127	431	509	60	417		gaaccgtggaaaTCATATGActcgatcgatag tctcttgctaaTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_ananassae</i>	Dana\GF21182		127	471	509	81	417		gaaccgtggaaaTCATATGActcgatcgatag cccacaccaccTCACATGAccagcgataaca	5'UTR? intron1	
<i>Drosophila_pseudoobscura</i>	Dpse\GA15530		127	237	509	68	417		gctgaaaaaaaaTCATATGActtgatcgacga acgcccgctttgTCATGTGAccgtgccccgt	5'UTR? intron1	
<i>Drosophila_persimilis</i>	Dper\GL14761		127	237	509	68	417		gctgaaaaaaaaTCATATGActtgatcgacga acgcccgctttgTCATGTGAccgtgccccgt	5'UTR? intron1	
<i>Drosophila_miranda</i>	Dmir\Vha39-1		127	235	509	68	417		gctgaaaaaaaaTCATATGActtgatcgacga acgcccgctttgTCATGTGAccgtgccccgt	5'UTR? intron1	

<i>Drosophila_willistoni</i>	Dwil\GK10228		127	409	509	71	417		tgtagcgaagTCATATGActtggatcga ctgcttagtcagTCATGTGAcgccccacaac	5'UTR? intron1	
<i>Drosophila_albomicans</i>	Dalb\Vha39-1		127	409	509	71	417		gaggagttgcaaTCATATGActtgcgatcga ccgtgtttgagTCACATGAcgacagcgcag	5'UTR? intron1	
<i>Drosophila_mojavensis</i>	Dmoj\GI16480		127	733	509	61	417		agtctgctgcaaTCATATGActtgcgatcga cgccccccagTCACATGAcgagctatcagt	5'UTR? intron1	
<i>Drosophila_virilis</i>	Dvir\GJ16024		127	244	509	190	417		gaacagttgcaaTCATATGActtgcgatcga acgcccgcctggTCACATGActaatcaagca	5'UTR' intron1	
<i>Drosophila_grimshawi</i>	Dgri\GH17612		127	811	509	63	423		gaagagctaaaaTCATATGActtgcgatcga tcacagtcagagTCACATGAcaagcaaacat	5'UTR? intron1	

Paralogs: VhaAC39-2 (CG4624)

<i>Drosophila_melanogaster</i>	Dmel\VhaAC39- 2	77		686		67	367	103			
<i>Drosophila_simulans</i>	Dsim\GD18401			686		59	ND				
<i>Drosophila_sechellia</i>	Dsec\GM23587			686		59	367				
<i>Drosophila_yakuba</i>	Dyak\GE23978			686		58	367				
<i>Drosophila_erecta</i>	Dere\GG12455			686		66	367				
<i>Drosophila_biarmipes</i>	Dbia\VhaAC39- 2			686		57	367				
<i>Drosophila_takahashii</i>	Dtak\VhaAC39- 2			686		192	367				
<i>Drosophila_suzukii</i>	Dsuz\VhaAC39- 2			686		60	367				
<i>Drosophila_eugracilis</i>	Deug\VhaAC39- 2			686		57	367				
<i>Drosophila_ficusphila</i>	Dfic\VhaAC39-2			686		59	367				
<i>Drosophila_elegans</i>	Dele\VhaAC39- 2			686		84	367				
<i>Drosophila_rhopaloea</i>	Drho\VhaAC39- 2			686		121	367				
<i>Drosophila_kikkawai</i>	Dkik\VhaAC39- 2			686		57	370				
<i>Drosophila_bipectinata</i>	Dbip\VhaAC39- 2			683		62	370				
<i>Drosophila_ananassae</i>	Dana\GF18027			683		51	370				

<i>Drosophila_pseudoobscura</i>	Dpse\GA18311		1047	
<i>Drosophila_persimilis</i>	Dper\GL23045		1047	
<i>Drosophila_miranda</i>	Dmir\VhaAC39-2		1047	
<i>Drosophila_willistoni</i>	Dwil\GK22588		1062	
<i>Drosophila_albomicans</i>	Dalb\VhaAC39-2		ND	
<i>Drosophila_mojavensis</i>	Dmoj\GI10510		1056	
<i>Drosophila_virilis</i>	Dvir\GJ23190		1059	
<i>Drosophila_grimshawi</i>	Dgri\GH21449		1056	

Key: UTR region, CDS region