

Gene Cluster ID			Vma21									
Drosophila melanogaster gene			CG5969									
FlyBase ID			<a href="#">FBgn0036998</a>									
Predicted function			Vacuolar ATPase assembly integral membrane protein VMA21-like domain									
Vma21 gene structure comparison:												
Key: <span>UTR region</span> , <span>CDS region</span>												
Order	Species	Vma21 orthologs	5'exon		intron	exon	intron	exon3'	Extended CLEAR region	Position	bps from TSS	
Diptera (Drosophilidae)	<i>Drosophila_melanogaster</i>	<a href="#">Dmel\CG5969</a>	101	72	62	246		517	actaccacittaTCATGTGAtttgtgattgt	5'	-11	
Diptera (Muscidae)	<i>Musca_domestica</i>	<a href="#">Mdom\Vma21</a>		78	69	240			ctgtataactaaTCATGTGAcgttgattggac	5'	>-120	
Diptera ( Tephritidae)	<i>Ceratitis_capitata</i>	<a href="#">Ccap\Vma21</a>	96	51	60	255		298	ggtgaaatgcaTCACGTGAcgtttcttcat	5'	-31	
Diptera (Glossinidae)	<i>Glossina_morsitans</i>	<a href="#">Gmor\Vma21</a>		318					ND			
Diptera (Psychodidae)	<i>Phlebotomus_papatasi</i>	<a href="#">Ppap\Vma21</a>	115	27	94	270		423	aatagagaaaagTCACATGAcgccgaattgag	intron1	172	
Diptera (Culicidae)	<i>Anopheles_stephensi</i>	<a href="#">Aste\Vma21</a>		42	110	285			ND			
	<i>Anopheles_gambiae</i>	<a href="#">AGAP01354</a>	55	42	81	273		369	ND			
	<i>Anopheles_darlingi</i>	<a href="#">Adar\Vma21</a>		42	64	279			ND			
	<i>Aedes_aegypti</i>	<a href="#">AAEL011546</a>		42	142	279			atcgctcattggTCAGCTGAttccctcagaa	5'		
		<a href="#">AAEL013448</a>		42	142	279			atcgctcattggTCAGCTGAttccctcagaa	5'		
	<i>Culex_pipiens_qui.</i>	<a href="#">CPII002927</a>		39	136	264			ND			
Diptera (Cecidomyiidae)	<i>Mayetiola_destructor</i>	<a href="#">Mdes\Vma21</a>		ND	ND	282			gtaattgtttaTCATGTGAttgtgtacact	5'	ND	
Lepidoptera	<i>Bombyx_mori</i>	<a href="#">Bmor\Vma21</a>	76	21	87	249		192	ataggatgtgTCATATGAatcatcattt	5'	1012	
	<i>Danaus_plexippus</i>	<a href="#">Dple\Vma21</a>		21	88	252			ND			
	<i>Heliconius_melpomene</i>	<a href="#">Hmel\Vma21</a>		21	86	252			ND			
	<i>Manduca sexta</i>	<a href="#">Msex\Vma21</a>		21	80	249			acattcatcatTCATGTGAtcgatcattgat	5'	-86	
Coleoptera	<i>Dendroctonus_ponderosae</i>	<a href="#">Dpon\Vma21</a>	64	109			55	149	244	aaagtggactagTCATGTGAttcagtccaat	3'UTR	378
	<i>Tribolium_castaneum</i>	<a href="#">Tcas\Vma21</a>								NA		
Hymenoptera	<i>Apis_mellifera</i>	<a href="#">GB11041</a>	396	15	90	106	528	140	1688	ND		
	<i>Apis_florea</i>	<a href="#">Aflo\Vma21</a>		15	112	106*	729	140		ND		
	<i>Bombus_terrestris</i>	<a href="#">Bter\Vma21</a>	631	15	90	106	401	140		ND		
	<i>Bombus_impatiens</i>	<a href="#">Bimp\Vma21</a>		15	90	106	648	140		ND		
	<i>Megachile_rotundata</i>	<a href="#">Mrot\Vma21</a>		15	97	106	402	140		ND		
	<i>Acromyrmex_echinator</i>	<a href="#">Aech\Vma21</a>		15	92	106	173	143		ND		
	<i>Atta_cephalotes</i>	<a href="#">Acep\Vma21</a>		15	98	106	ND	143		ND		

	<i>Solenopsis_invicta</i>	<a href="#">Sinv\Vma21</a>	127	18	108	106	142	143	284	ND		
	<i>Pogonomyrmex_barbatus</i>	<a href="#">Pbar\Vma21</a>		15	110	106	197	143		ND		
	<i>Linepithema_humile</i>	<a href="#">Lhum\Vma21</a>		15	108	106	129	143		ND		
	<i>Harpegnathos_saltator</i>	<a href="#">Hsal\Vma21</a>		15	99	106	160	140		ND		
	<i>Camponotus_floridanus</i>	<a href="#">Cflo\Vma21</a>		15	99	106	171	143		ND		
	<i>Nasonia_giraulti</i>	<a href="#">Ngir\Vma21</a>		15	166	106	83	140		ND		
	<i>Nasonia_longicornis</i>	<a href="#">Nlon\Vma21</a>		15	166	106	83	140		ND		
	<i>Nasonia_vitripennis</i>	<a href="#">NV14065</a>	399	15	166	106	83	140	951	ND		
Hemiptera	<i>Acyrtosiphon_pisum</i>	<a href="#">Apis\Vma21</a>								NA		
	<i>Rhodnius_prolixus</i>	<a href="#">Rpro\Vma21</a>								NA		
Phthiraptera	<i>Pediculus_humanus</i>	<a href="#">Phum\Vma21</a>								NA		
	<i>Ladona_Fulva</i>	<a href="#">Lful\Vma21</a>								NA		
Crustacea	<i>Daphnia_pulex</i>	<a href="#">Dpu\Vma21</a>	30	36	80	39+64+73	56	137	49	actgtcgaccACACGTGacaacgccgtc	5'	24
Ixodida	<i>Ixodes_scapularis</i>	<a href="#">Isca\Vma21</a>	161+2927+14			264			305			
	<i>Homo_sapiens</i>	<a href="#">VMA21</a>	124	53	6269	110	1175	143	4306	caccgccgtaagTCATGTGAgcgcgccccccc	5'	114
Cnidaria	<i>Nematostella_vectensis</i>	<a href="#">Nvec\Vma21</a>	112	38	102	104	1627	134	131	ctgaagtaTCACACGAgcggatcgcaa	5'	214
Placozoa	<i>Trichoplax_adhaerens</i>	<a href="#">Tadh\Vma21</a>		ND	ND	104	459	131		gttgaaagtaTCATACGAtcaattaaag	5'	1228