## Search

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VectorBase

Bioinformatics Resource for Invertebrate Vectors of Human Pathogens

# What is search and how is it organized?



### Search

Filter Results	
Domain (Reset Filter)	Hits •
Genome	4297312
Sub-domain	Hits -
Genomic sequence assembly	3665236
Gene	584805
Mitochondrial genome	47271
Species	Hits +
Ixodes scapularis	960900
Biomphalaria glabrata	754144
Aedes albopictus	527435

## Where is the Search box located?



**Demo**: Try Search using the keyword the wild card or asterisk \*

Table 1

List of genes analyzed in the study. They are 1:1:1 orthologous genes that are predicted to code for perfectly conserved proteins among the three mosquitoes.

Gene name	Ortholog trios (Agam/Aaeg/Cqui)
Actin	AGAP005095/AAEL001673/CPIJ016462



Rodriguez et al. 2012. Infect Genet Evol. 12 (7):1535-42

**Demo**: Try Search using as keywords the gene name and the gene IDs.

AGAP\*\*\*\*\*

**PFST** 

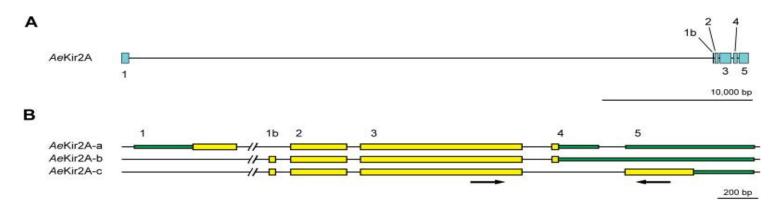


Fig. 2.

Genomic structure of the *Aedes aegypti* Kir2A gene: (A) Representation of the *Ae*Kir2A gene (to scale) on supercontig1.358 of the Liverpool strain of *Aedes aegypti*. Exons are indicated by blue boxes. Horizontal black bars represent introns. (B) Representation of the exon composition of the *Ae*Kir2A cDNAs (to scale) cloned in the present study. Exons are indicated by the colored bars. Green shading indicates a 5' or 3' untranslated region; yellow shading indicates protein coding sequence. Arrows signify the location of the splice-form specific RT-PCR primers ( Supplemental Fig. 1). (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

Rouhier et al. 2014. Insect Biochem Mol Biol 48: 91-9

**Demo**: Try Search using the as keywords the gene name

# Keywords to look for a gene



VectorBase gene ID



Gene metadata (name and description) - Not recommended



Terms from external databases such as InterPro or Gene Ontology (GO)



Links from the archival databases, such as GenBank, to VectorBase

#### **Abstract**

#### **Background**

Pyrethroid insecticides, especially permethrin and deltamethrin, have been used extensively worldwide for mosquito control. However, insecticide resistance can spread through a population very rapidly under strong selection pressure from insecticide use. The upregulation of aldehyde dehydrogenase (*ALDH*) has been reported upon pyrethroid treatment. In *Aedes aegypti*, the increase in ALDH activity against the hydrolytic product of pyrethroid has been observed in DDT/permethrin-resistant strains. The objective of this study was to identify the role of individual ALDHs involved in pyrethroid metabolism.

Lumjuan et al. 2014. PLoS ONE 9(7): e102746

**Demo**: Try Search using the as keywords the InterPro ID and gene description (with and without quotation marks)



GenBank -

## Aedes aegypti AAEL010392-RA partial mRNA

NCBI Reference Sequence: XM\_001654436.1

FASTA Graphics

Go to: ☑

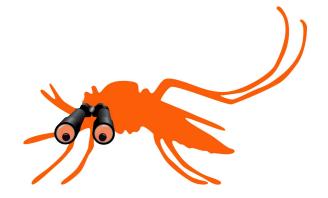
LOCUS XM 001654436 1999 bp mRNA linear INV 05-MAR-2015

DEFINITION Aedes aegypti AAEL010392-RA partial mRNA.

ACCESSION XM 001654436

VERSION XM 001654436.1 GI:157125998

**Demo**: Navigate from GenBank to VectorBase, following the gene ID link



# In summary

## How to search for more information or help?

E-mail us at info@vectorbase.org

Thank you!