

Materials List for:

Protocols for Testing the Toxicity of Novel Insecticidal Chemistries to Mosquitoes

Carlos A Brito-Sierra^{*1}, Jasleen Kaur^{*1}, Catherine A. Hill^{1,2}

¹Department of Entomology, Purdue University

²Purdue Institute for Inflammation, Immunology and Infectious Disease, Purdue University

*These authors contributed equally

Correspondence to: Catherine A. Hill at hillca@purdue.edu

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Materials

Name	Company	Catalog Number	Comments
Insecticide susceptible mosquito strains	Malaria Research and Reagent Reference Repository	https://www.beiresources.org/MR4Home.aspx ; Recommended strains: Aedes aegypti Liverpool (LVP) strain, Anopheles gambiae Kisumu (KISUMU1) strain and Culex quinquefasciatus Johannesburg (JHB) strain	
Acetone	Mallinckrodt Chemical	CAS 67-64-1	Use for dilutions and control
Amitraz	Sigma-Aldrich	CAS 33089-61-1	Requires dilution in DMSO
Amitriptyline	Sigma-Aldrich	CAS: 549-18-8	Can be diluted in acetone
Bifenthrin	Sigma-Aldrich	CAS: 51529-01-2	Synthetic pyrethroid used as positive control
Cis-(Z)-flupenthixol	Sigma-Aldrich	CAS: 51529-01-2	Pharmacologically tested as disruptor of dop-like receptors
Defibrinated rabbit blood	Hemostat	DRB0100	Blood source for adapted mosquitoes to artificial feeding
Dimethylsulphoxide (DMSO)	Sigma-Aldrich	MKBF2985	Organic solvent used to dissolve amitraz
Hemotek membrane feeding system	Hemotek Ltd	Serial no. 1303	Used for feeding mosquitoes
Micro-applicator	Burkard Manufacturing Co.	-	Tool needed for topical application experiments
24-well cell culture plate with lid	Corning Incorporated	3526	-
Advantage rubber bands	Alliance Rubber Co.	-	Used to seal the paper cups
Glass syringe (1 ml)	Becton Dickinson and Co.	512004	Needed for the micro-applications. Glass is better than plastic
Disposable scintillation vials (20 ml)	Fisher Scientific	74505-20	Glass vials prevent evaporation
Tulle fabric, white	Walmart	-	-
Paper cups	Dixie Consumer Products LLC.	PF15675/13D	Used to keep adult mosquitoes in adult topical assays
Petri dishes (150 mm)	Corning Life Sciences	-	Used to maintain the mosquitoes "slept" on cold without direct contact with ice
Transfer pipettes	Fisher Scientific	13-711-7M	Used to sort larvae
Stereo microscope	Olympus	SZ6045	Used to score larval assays and perform micro-applications
Tweezers (fine)	Fontax	-	Used to handle adult mosquitoes