

Materials List for:

Functional Characterization of Carboxylesterases in Insecticide Resistant House Flies, *Musca Domestica*

Xuechun Feng¹, Nannan Liu¹

¹Department of Entomology and Plant Pathology, Auburn University

Correspondence to: Nannan Liu at liunann@auburn.edu

URL: <https://www.jove.com/video/58106>

DOI: [doi:10.3791/58106](https://doi.org/10.3791/58106)

Materials

Name	Company	Catalog Number	Comments
Q5 High-Fidelity DNA Polymerase	New England Biolabs inc.	M0491L	
QIAquick Gel Extraction Kit	QIAGEN	28704	
pENTR/D-TOPO Cloning Kit, with One Shot TOP10 Chemically Competent E. coli	Invitrogen by life technology	K240020	S.O.C medium and universal M13 sequence primers were included in this kit.
PureLink HiPure Plasmid Miniprep Kit	Invitrogen by life technology	K210002	
Gateway LR Clonase II Enzyme mix for BaculoDirect™ Kits	Invitrogen by life technology	11791-023	
BaculoDirect C-Term Linear DNA Transfection Kit	Invitrogen by life technology	12562-019	Cellfectin transfection reagent and ganciclovir were included in this kit
pENTR-CAT plasmid	Invitrogen by life technology		Included in BaculoDirect C-Term Linear DNA Transfection Kit, concentration: 0.5 ug/uL
Heat inactivated Fetal Bovine Serum, Certified	Gibco by Life Technologies	10082-139	
Sf9 cells in Sf-900 III SFM	Gibco by Life Technologies	12659017	
Insect Cell-PE LB Insect Cell Protein Extraction & Lysis Buffer	G Biosciences by A Geno Technology Inc	786-411	
Sf-900 III SFM (1×) Serum Free Medium Complete	Gibco by Life Technologies	12658-019	
Grace's Insect Medium, unsupplemented	Gibco by Life Technologies	11595030	
Permethrin (isomers) analytical standard	SUPELCO by Solutions Within™	442748	
Methanol (analytical graded)	Sigma-Aldrich	67-56-1	
Acetonitrile (analytical graded)	Sigma-Aldrich	75-05-8	
GHP Acrodisc 25 mm Syringe Filters with 0.45 µm GHP Membrane (HPLC Certified)	Pall Life Sciences	21890388	
Alliance Waters 2695 HPLC System	Waters		
T100 Thermal Cycle	Bio-Rad Laboratories Inc.	1861096	
Nanodrop 2000/2000c Spectrophotometers	ThermoFisher Scientific	ND2000CLAPTOP	
Cytation 5 Cell Imaging Multi-Mode Reader	BioTek		