

Materials List for:

QTL Mapping and CRISPR/Cas9 Editing to Identify a Drug Resistance Gene in *Toxoplasma gondii*

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Materials

Name	Company	Catalog Number	Comments
T25 flasks	Corning	430639	
Human Foreskin Fibroblasts (HFF)	ATCC	SCRC-1041	
<i>T. gondii</i> ME49 strain	ATCC	50840	
<i>T. gondii</i> VAND strain	ATCC	PRA-344	
DMEM (No Sodium Bicarbonate)	Life Sciences	12800017	
Sodium Bicarbonate	Sigma Aldrich	S5761	
HEPES	Sigma Aldrich	H3375	
Fetal Bovine Serum (FBS) Premium Grade	VWR International	97068-085	
L-Glutamine 200 mM	Sigma Aldrich	G7513	
Gentamicin (10 mg/mL)	Life Technologies	15710064	
Cell Scraper for Flasks	VWR International	10062-904	
Syringe 10 mL	BD	309604	
Blunt needles 22 G x 1"	BRICO Products	BN2210	
Nuclepore Filter 3.0 µm, 25 mm	GE Healthcare	110612	
Swin-Lok Filter Holder 25 mm	GE Healthcare	420200	
Hemocytometer	Propper MFG	90001	
Sinefungin	Enzo Life Sciences	380-070-M001	
R	The R Foundation	https://www.r-project.org/	
J/qtl	The Churchill Group	http://churchill.jax.org/software/jqtl.shtml	
Bowtie2	John Hopkins University	http://bowtie-bio.sourceforge.net/bowtie2/index.shtml	
NCBI SRA Toolkit	NCBI	http://www.ncbi.nlm.nih.gov/Traces/sra/?view=toolkit_doc	
SAMtools	Wellcome Trust Sanger Institute	http://www.htslib.org/	
VarScan	Washington University, St Louis	http://varscan.sourceforge.net/	
MUMmer	JCVI & Univ Hamburg	http://mummer.sourceforge.net/	
pSAG1::CAS9-U6::sgUPRT	Addgene	Plasmid #54467	<i>T. gondii</i> CRISPR plasmid to cut the UPRT gene
pSAG1::CAS9-U6::sg290860-6	Addgene	Plasmid #59855	<i>T. gondii</i> CRISPR plasmid to cut the TG*_290860 SNR1 gene
pUPRT::DHFR-D	Addgene	Plasmid #58528	Template for <i>DHFR*</i> mini gene
Q5 Site-Directed Mutagenesis Kit	New England Biolabs	E0552S	
QIAprep Spin Miniprep Kit	QIAGEN	27106	

NanoDrop 2000	Thermo Scientific	ND-2000	
LB Broth	Fisher Scientific	DF0446-07-5	
Potassium chloride	Sigma Aldrich	P9541	
Calcium chloride	Sigma Aldrich	746495	
Potassium phosphate monobasic	Sigma Aldrich	P9791	
Potassium phosphate dibasic	Sigma Aldrich	P5504	
EDTA	Sigma Aldrich	E5134	
Magnesium chloride	Sigma Aldrich	M1028	
Adenosine triphosphate (ATP)	Sigma Aldrich	A6419	
L-glutathione (GSH)	Sigma Aldrich	G4251	
ECM 830 Electroporation System	BTX	45-0002	
Electroporation Cuvette 4 mm	Harvard Apparatus	45-0126	
Crytal Violet	Alfa Aesar	B21932-14	
6-well TC plate	Corning	353046	
24-well TC plate	Corning	353935	
Cover glass 12 mm round	VWR International	89015-724	
96-well TC plate	Corning	353075	
Gibson Assembly Cloning Kit (Multi-fragment)	New England Biolabs	E5510S	
Q5 High-Fidelity Polymerase	New England Biolabs	M0491S	
Pyrimethamine	TCI AMERICA	P2037-1G	Use caution when using pyrimethamine resistant parasites - see Protocol