Trypanosoma cruzi CRISPR/Cas9 System Plasmid, PUC_sgRNA

Published date: Nov. 13, 2017

Technology description

Contains the empty sgRNA backbone sequence (tracrRNA, 82 bp) and is used as DNA template to amplify a specific sgRNA using a forward primer with the protospacer sequence for gene targeting. Trypanosoma cruzi CRISPR/Cas9 System plasmids allow for the amplification of a specific sgRNA sequence or express cas9 to generate CRISPR-ablated, red/green fluorescent parasites.
Trypanosoma cruziis the agent of Chagas disease, which affects millions of people worldwide. Vaccines to prevent this disease are not available, and drug treatments are not completely effective. The study of the biology of this parasite through genetic approaches will make possible the development of new preventive or treatment options.

Reagent Description

Gene/Insert Name: tracrRNA sequence
Insert Size (bp): 82 bp
Species: N/A
Fusion Proteins/Tags: N/A
Vector Backbone and Size (bp): pUCAmp; 3150 bp
Cloning Site 5′ : 5′ sequencing primer: M13_forward20_primer and M13_pUC_fwd_primer
Cloning Site 3′ : 3′ sequencing primer: M13_reverse_primer and M13_pUC_rev_primer
Antibiotic Resistance: Ampicillin
High or Low Copy: High
Grow in Standard E. coli @ 37oC? DH5alpha; 37°C
Selectable Markers: Neomycin (select with G418)
Recommended Storage Temperature: -20 ^{O} C

References

Lander N, Li ZH, Niyogi S, Docampo R. CRISPR/Cas9-Induced Disruption of Paraflagellar Rod Protein 1 and 2 Genes inTrypanosoma cruziReveals Their Role in Flagellar Attachment. mBIO. 2015. 6(4): e01012-15.

Institution

University of Georgia

联系我们

叶先生

电 话：021-65679356

手 机：13414935137

邮 箱：yeyingsheng@zf-ym.com