# Certificate of Analysis for NR-13406

## Shuttle Vector pMCSU4 for Gene Expression in *Mycobacterium tuberculosis* and *Escherichia coli*

**Catalog No. NR-13406**
This reagent is the tangible property of the U.S. Government.

**Product Description:** pMCSU4 is a shuttle vector that can be used for gene expression in either *Escherichia coli* or *Mycobacterium tuberculosis*. The pMCSU4 vector contains origins of replication for both organisms, *Escherichia coli* bacteriophage λ *att*R sites, Mycobacteriophage L5 integrase CDS and *att*P site, a *Mycobacterium BCG* hsp60 promoter region, as well as the genes that confer resistance to kanamycin (Km) and chloramphenicol (Cm).

**Lot: 59388156** **Manufacturing Date: 30JUN2010**

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QC testing was performed by Colorado State University under the TB Vaccine Testing and Research Materials Contract (NIH). The Colorado State University documentation is attached.



Support Provided by NIAID

**Biodefense and Emerging Infections Research Resources Repository**
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
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# Recombinant Plasmid Quality Control Record

Plasmid designation pMCSU4

BEI Product Item Number NR-13406

BEI Lot Number 59388156

CSU Lot Number 10.pMCSU4.6.30

Notebook/Pgs Notebook #5; Page 23 (NKG)

Notebook detail

Media used LB

Culture size 250 mL

Growth conditions: Temp 37 Time 18 hrs Shaker speed 200

Plasmid prep type (mini/maxi, kit name or protocol) Qiagen HiSpeed Plasmid Midi Kit (Cat. No. 12643)

Plasmid prep detail: Midi prep Qia100 tip and elution conditions

Strain used to produce plasmid DB3.1

*E. coli* ori? Y/N Y

Contains Mycobacterial ori? Y/N Y

Final concentration 44.32 ng/µL

Total Stocks 33

Buffer TE

Method used for quantifying nanodrop

QC gel – N/A (no insert)

Restriction enzymes used in QC analysis N/A

Expected size of restriction fragments

Vector N/A

Insert N/A

Other N/A

Gel description file number, % agarose, buffer N/A

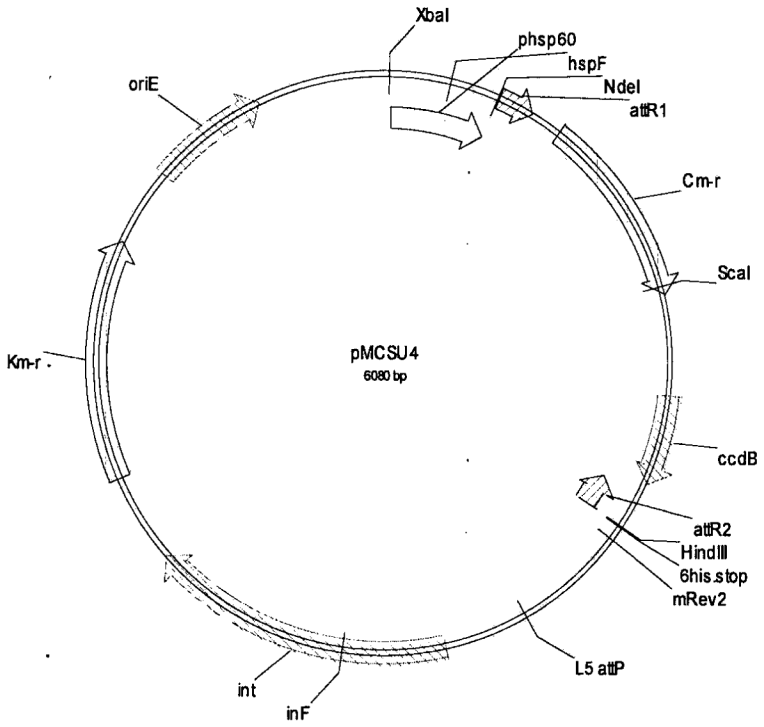
Recombination site/region confirmed by DNA sequencing: Y

Note: Sequencing was performed with three primers –

1. hspF Primer sequence 5' CGGTGAGTGCTAGGTCGGGACGG 3'
2. mRev2 Primer sequence 5' TGGCAGTCGATCGTACGCT 3'
3. inF Primer sequence 5' GTGATGAACACAGCGGTCGAG 3'

Sequence files: CSU4-F Date: 7/10/10
CSU4F2 Date: 7/14/10
CSU4R2 Date: 7/14/10

Plasmid Map:




Generated by Nicholas May Date 8/19/10

Supervisor [signature] Date 8/20/10

Form 4.2.09.KMD