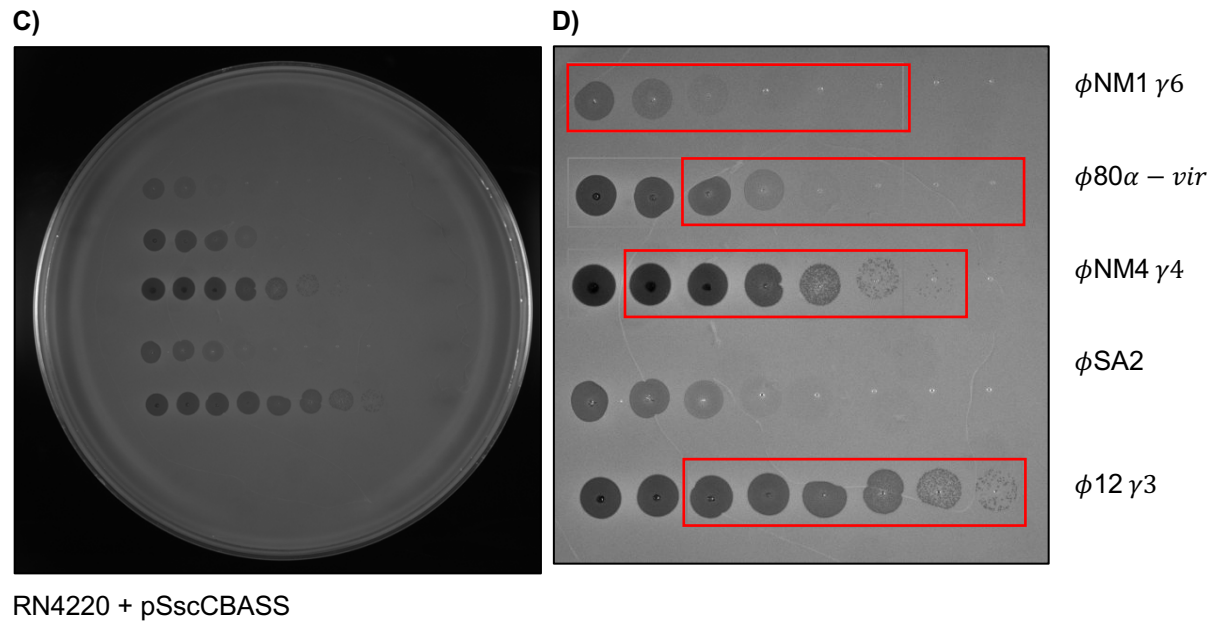
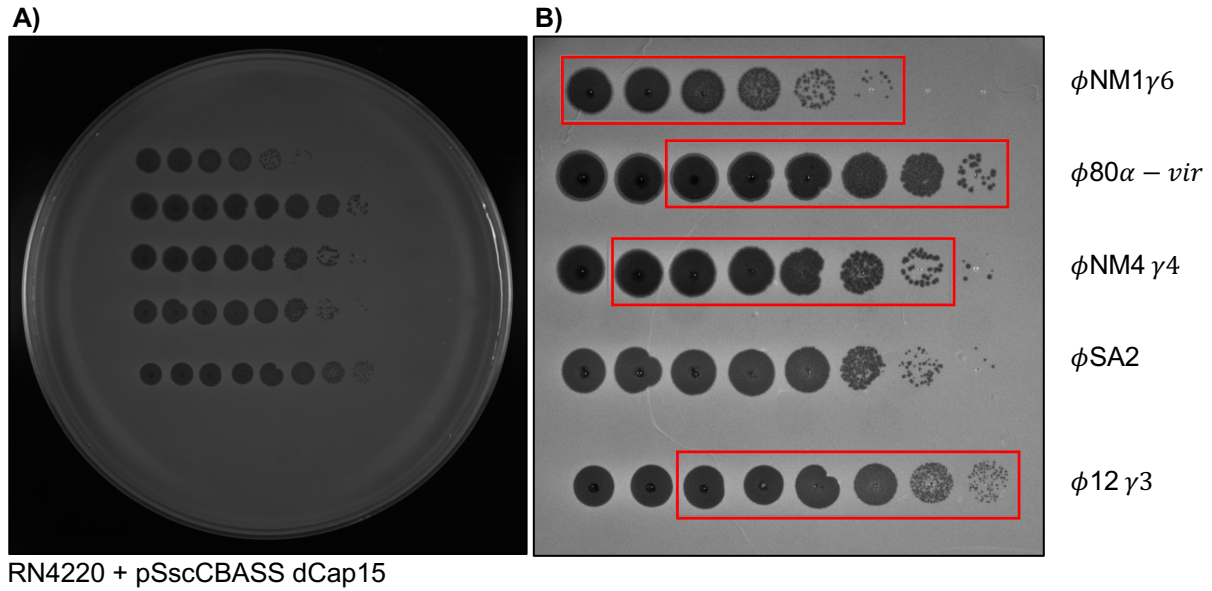


Supplementary Figure 1

Original source images for data obtained by spotting phage on lawns of staphylococci

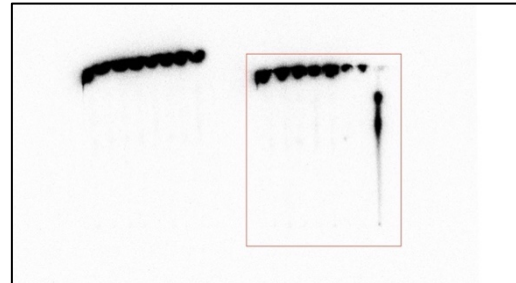
Box indicates location of cropped images in **Figure 1A**



Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure 1B**

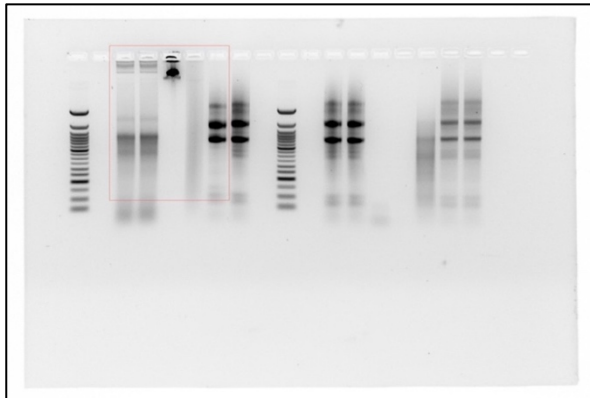
E)



phosphor
screen α -³²P
NTPs

imageJ auto
contrast
applied to
image on the
right

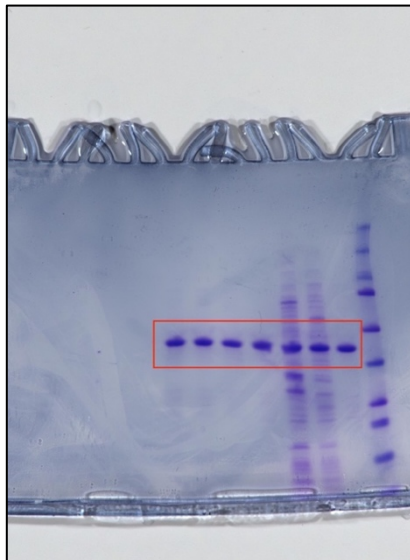
F)



stained with ethidium bromide

Ladder: new England biolabs 50 bp DNA ladder

G)



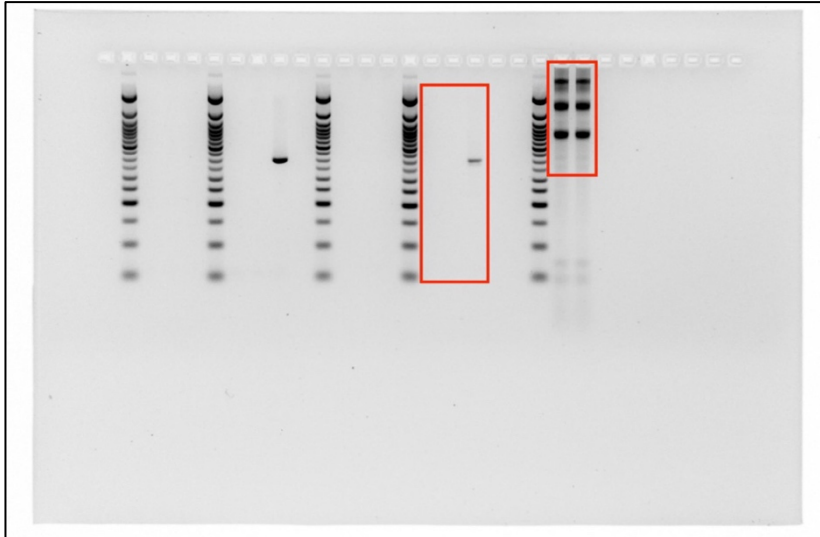
stained with Coomassie

Ladder: Bio-rad Precision Plus Protein Dual Color Standard

Original source images for data obtained by electrophoretic separation

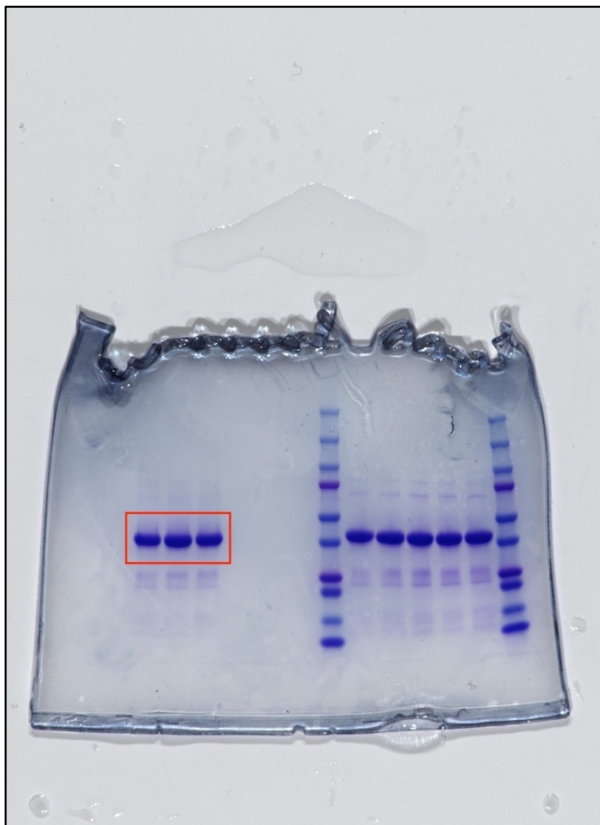
Box indicates location of cropped images in **Figure 1C**

H)



stained with ethidium bromide
Ladder: new England biolabs 50 bp
DNA ladder

I)

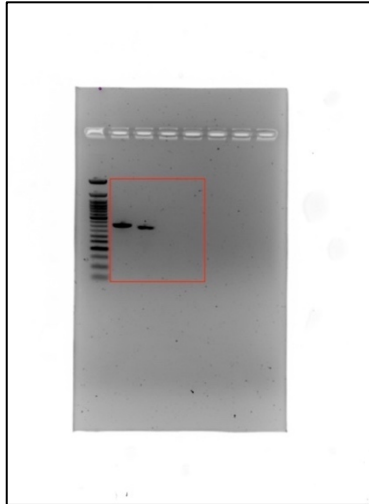


stained with Coomassie blue
Ladder: Bio-rad Precision Plus Protein Dual Color
Standard

Original source images for data obtained by electrophoretic separation

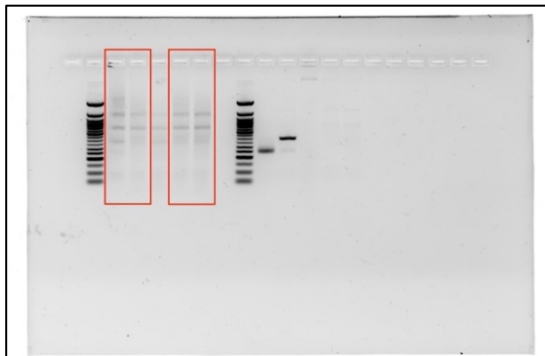
Box indicates location of cropped images in **Figure 1D**

J)



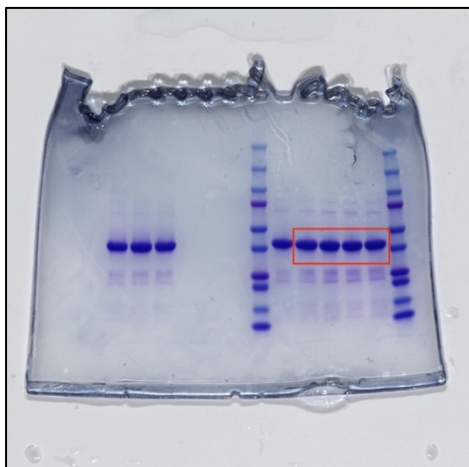
stained with ethidium bromide
Ladder: new England biolabs 50 bp DNA ladder

K)



stained with ethidium bromide
Ladder: new England biolabs 50 bp DNA ladder

L)

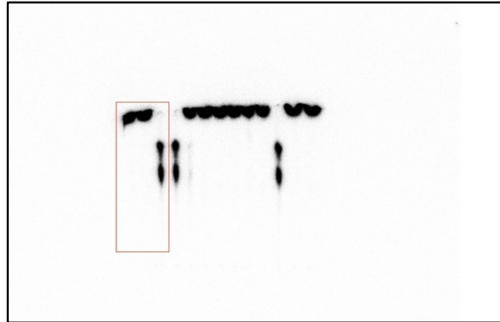


stained with Coomassie blue
Ladder: Bio-rad Precision Plus Protein Dual Color Standard

Original source images for data obtained by electrophoretic separation & data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure 1F**

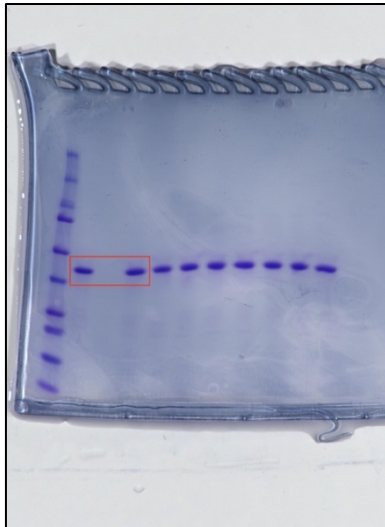
M)



phosphor screen α -³²P NTPs

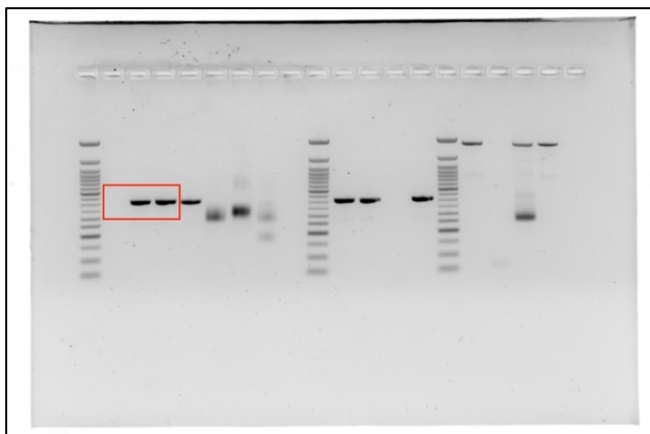
imageJ auto contrast applied to image on the right

N)



stained with Coomassie blue
Ladder: Bio-rad Precision Plus Protein Dual Color Standard

O)

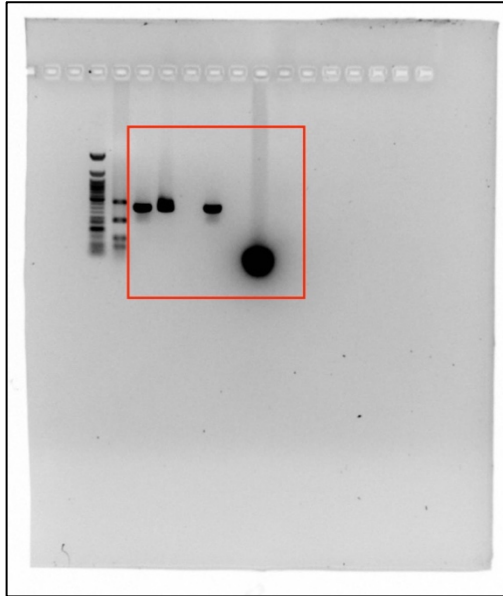


stained with ethidium bromide, Ladder: new England biolabs 50 bp DNA ladder

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure 2A**

P)



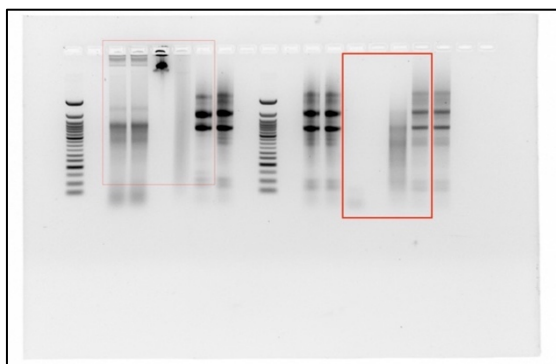
stained with ethidium bromide

Ladder: new England biolabs 50 bp DNA ladder and dsRNA ladder

Original source images for data obtained by electrophoretic separation & data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

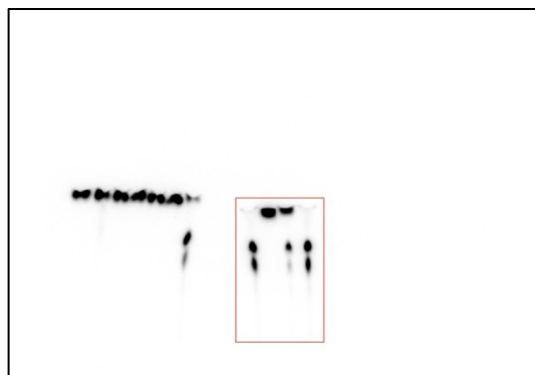
Box indicates location of cropped images in **Figure 2B**

Q)



stained with ethidium bromide, Ladder: new England biolabs 50 bp DNA ladder

R)



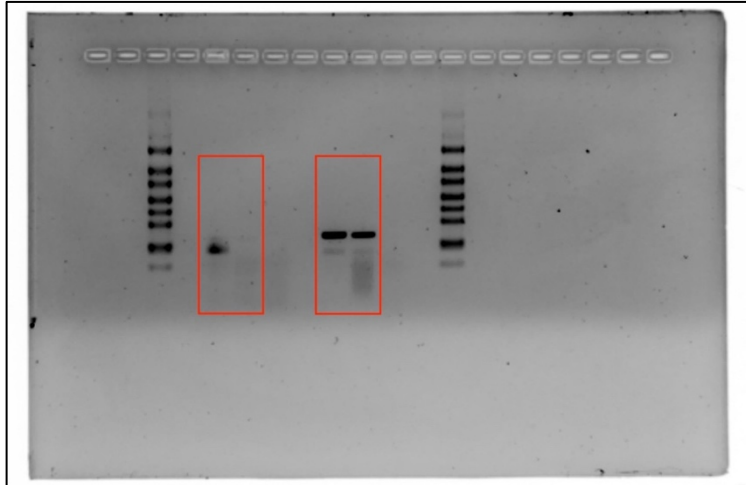
phosphor screen α -³²P NTPs

imageJ auto contrast applied to image on the right

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure 2C**

S)

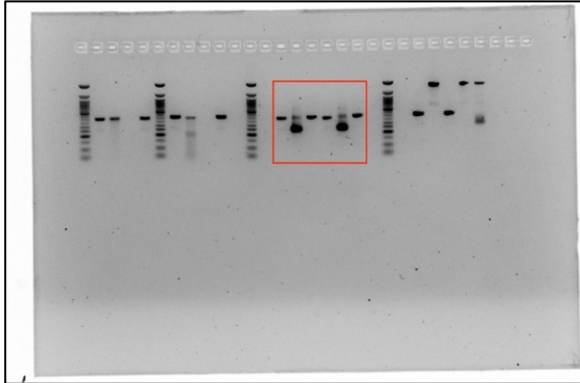


stained with ethidium bromide
Ladder: new England biolabs 50 bp
DNA ladder

Original source images for data obtained by electrophoretic separation & data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

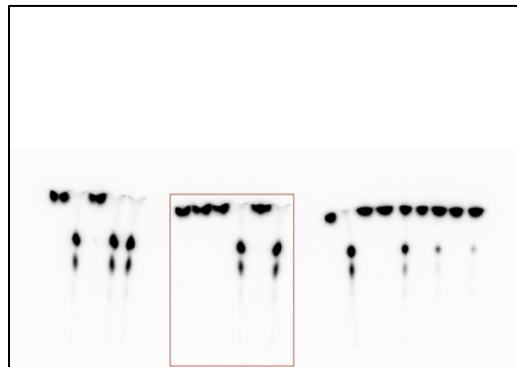
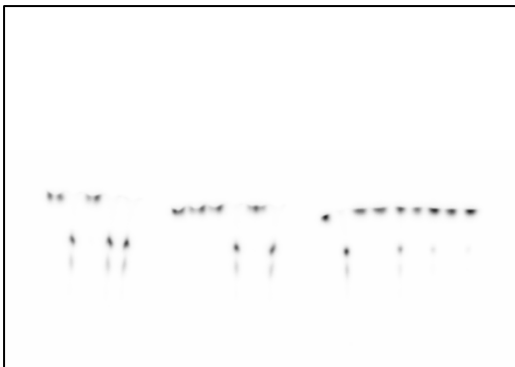
Box indicates location of cropped images in **Figure 2D**

T)



stained with ethidium bromide, Ladder: new England biolabs 50 bp DNA ladder

U)



phosphor screen α -³²P NTPs

imageJ auto contrast applied to image on the right

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

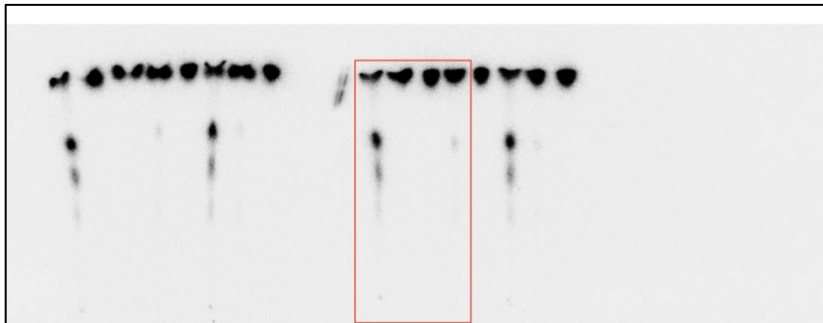
Box indicates location of cropped images in **Figure 3B**

v)



phosphor screen α -³²P NTPs

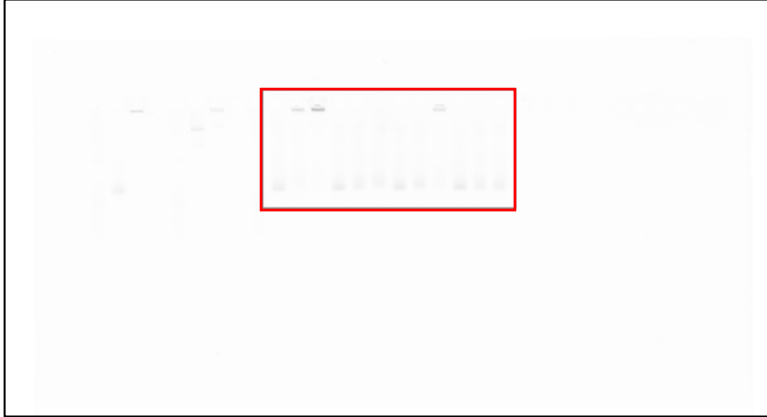
imageJ auto contrast applied to image on the bottom



Original source images for data obtained by electrophoretic mobility assay

Box indicates location of cropped images in **Figure 3C**

W)

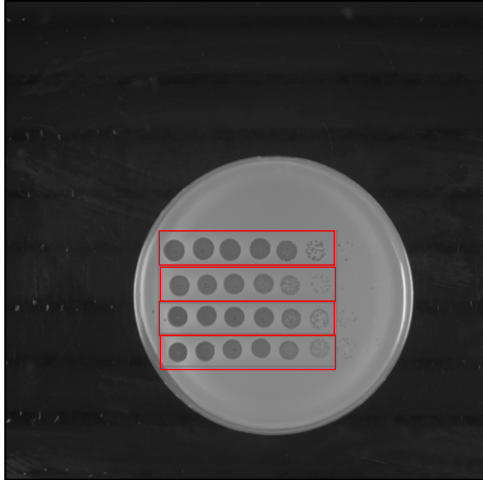


stained with ethidium bromide,
Ladder: new England biolabs 50 bp
DNA ladder

Original source images for data obtained by spotting phage on lawns of staphylococci

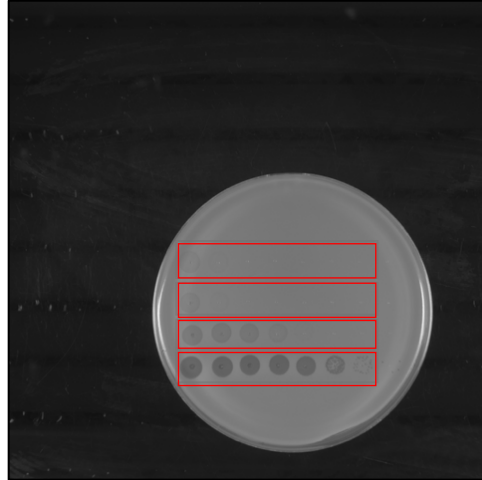
Box indicates location of cropped images in **Figure S5C**

X)



RN4220 + empty vector

Y)



RN4220 + pShaCBASS

$\phi 80\alpha$

ϕNM1

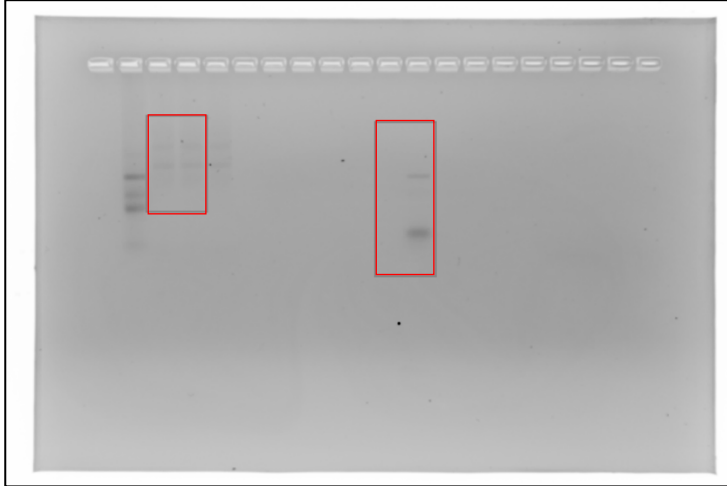
ϕNM4

$\phi 12$

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure S5D**

Z)



stained with ethidium bromide
Ladder: new England biolabs dsRNA
ladder

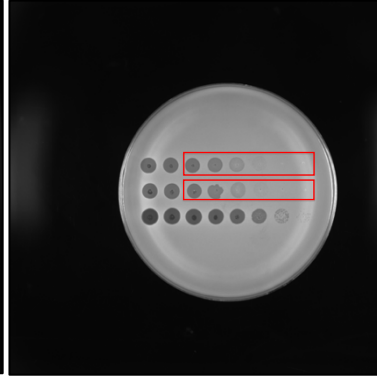
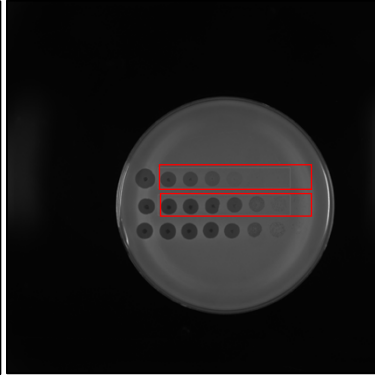
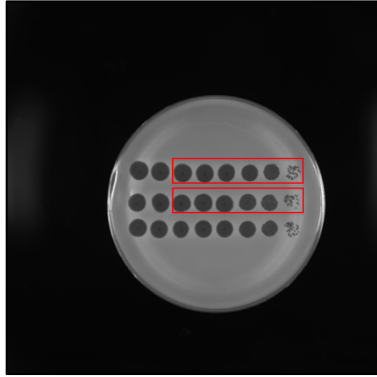
Original source images for data obtained by spotting phage on lawns of staphylococci

Box indicates location of cropped images in **Figure 4B**

AA)

AB)

AC)



ϕ 80 α wt
 ϕ 80 α gp40
S74F
 ϕ 80 α gp46
D105E

RN4220 + empty vector

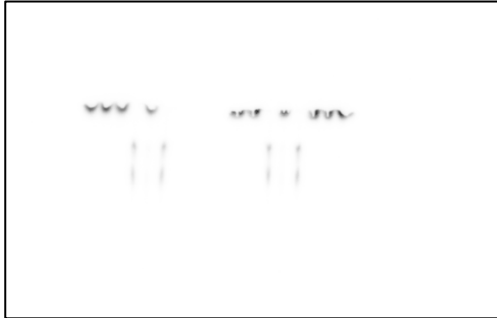
RN4220 + pCBASS

RN4220 + pCBASS + pTerS

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging & for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure 4C**

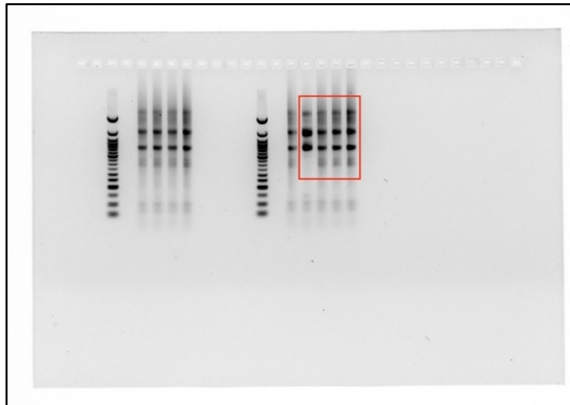
AD)



phosphor
screen α -³²P
NTPs

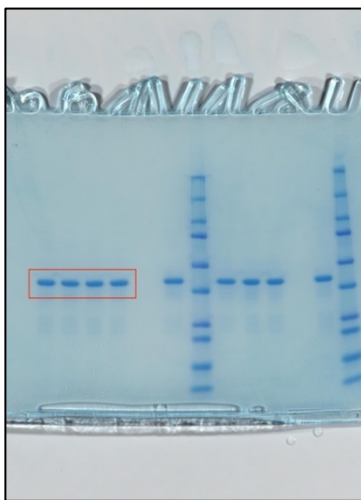
imageJ auto
contrast
applied to
image on the
right

AE)



stained with ethidium bromide, Ladder: new England
biolabs 50 bp DNA ladder

AF)

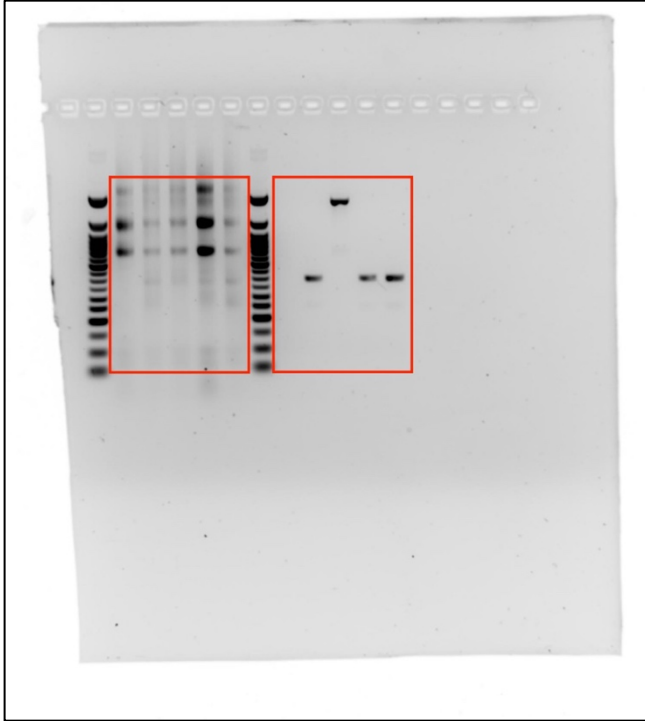


stained with Coomassie blue
Ladder: Bio-rad Precision Plus Protein Dual Color Standard

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure 4D**

AG)

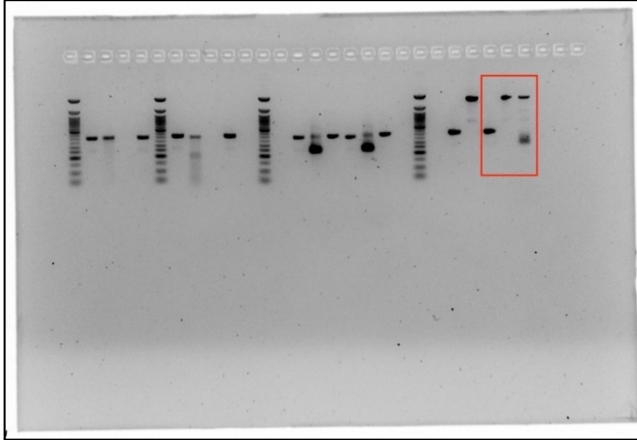


stained with ethidium bromide
Ladder: new England biolabs 50 bp DNA ladder

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging & for data obtained by electrophoretic separation

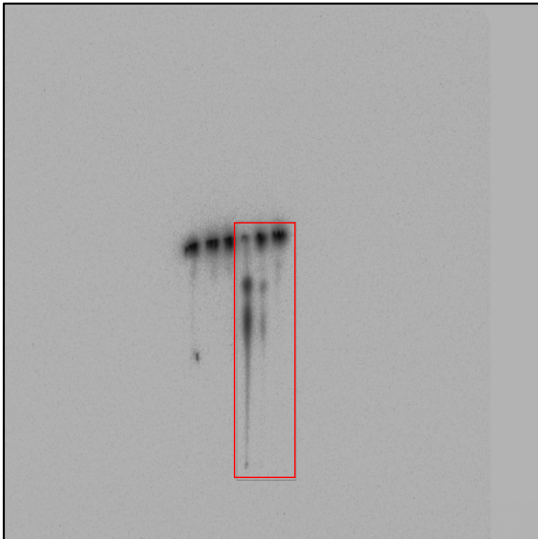
Box indicates location of cropped images in **Figure 4E**

AH)



stained with ethidium bromide
Ladder: new England biolabs 50 bp DNA ladder

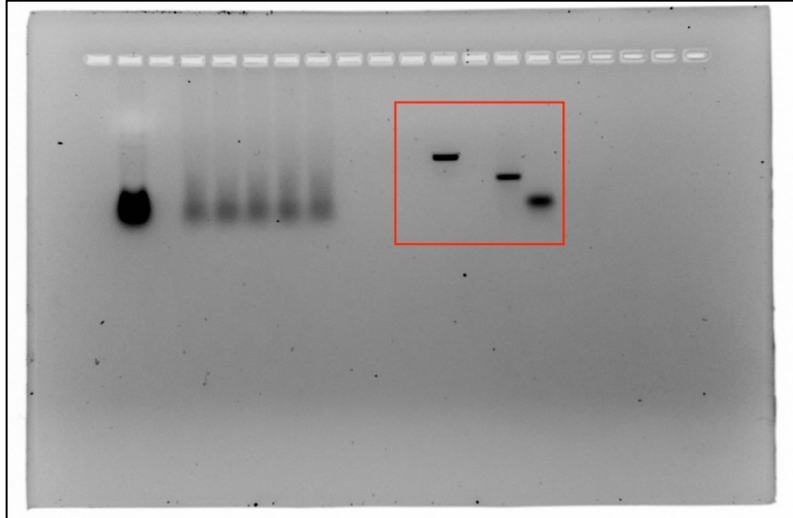
AI)



phosphor screen α -³²P NTPs

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure 5C**
AJ)

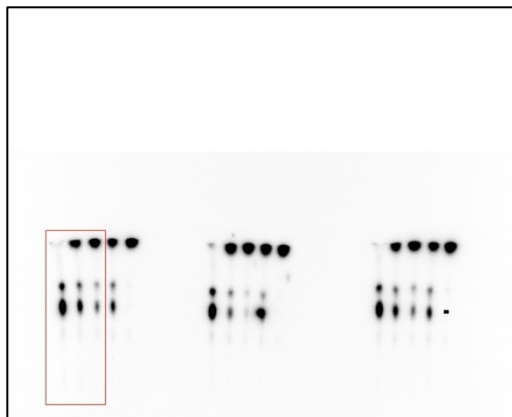


stained with ethidium bromide
Ladder: new England biolabs low
range dsRNA ladder

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure 5D**

AK)



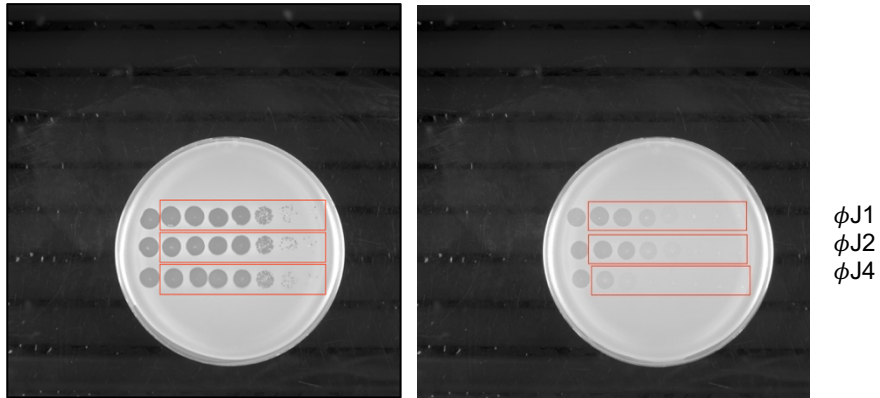
phosphor
screen α -³²P
NTPs

imageJ auto
contrast
applied to
image on the
right

Original source images for data obtained by spotting phage on lawns of staphylococci

Box indicates location of cropped images in **Figure 6A**

AL)



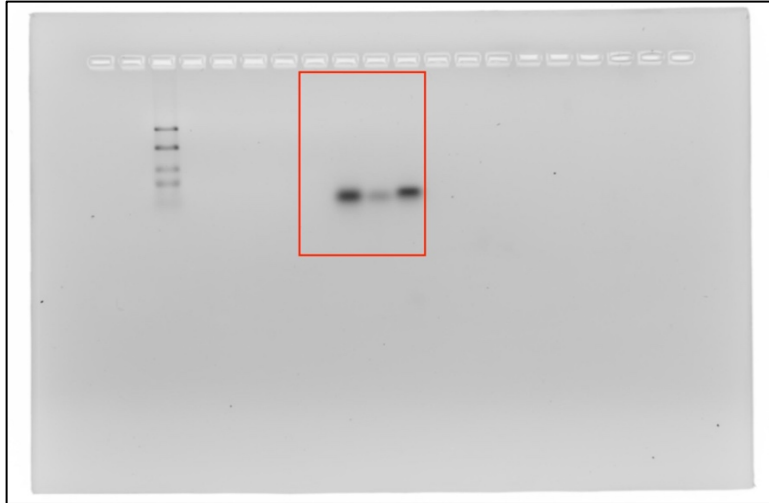
RN4220 + pSscCBASS dCap15

RN4220 + pSscCBASS

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure 6B**

AM)

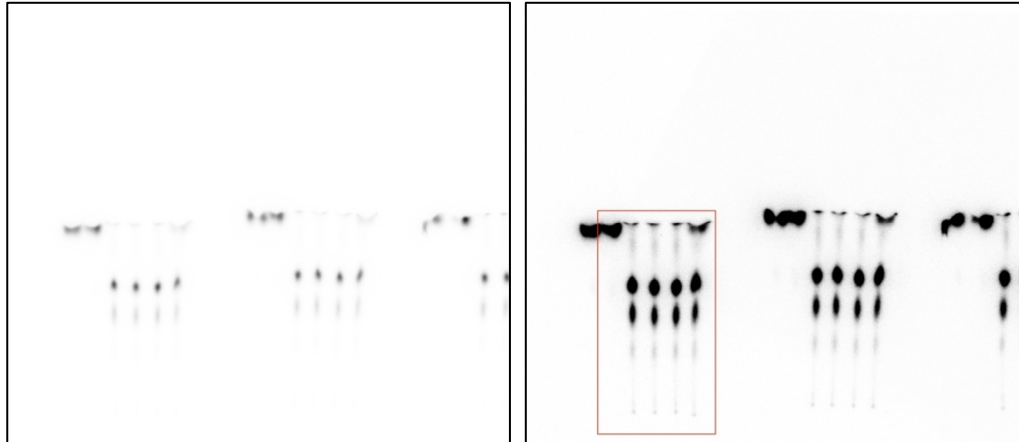


stained with ethidium bromide
Ladder: new England biolabs low
range dsRNA ladder

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure 6C**

AN)



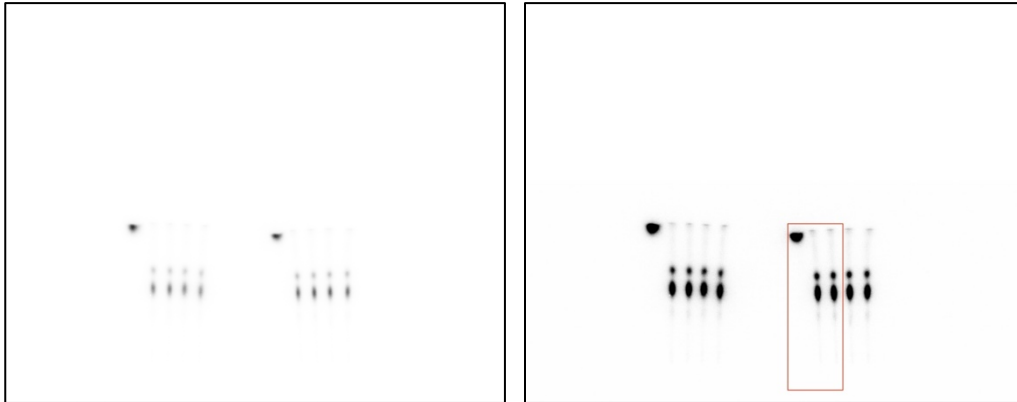
phosphor screen
 α -³²P NTPs

imageJ auto
contrast applied
to image on the
right

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure 6D**

AO)



phosphor screen
 α -³²P NTPs

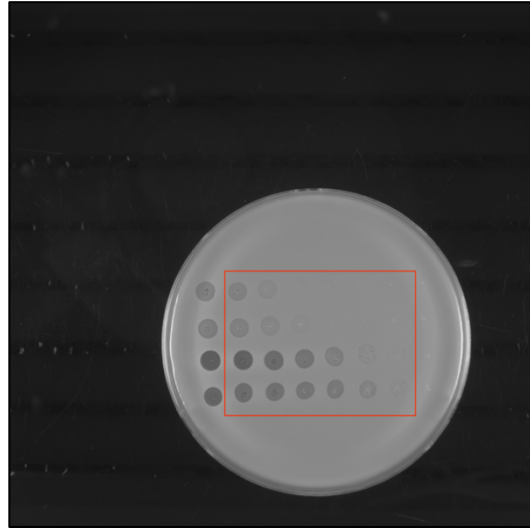
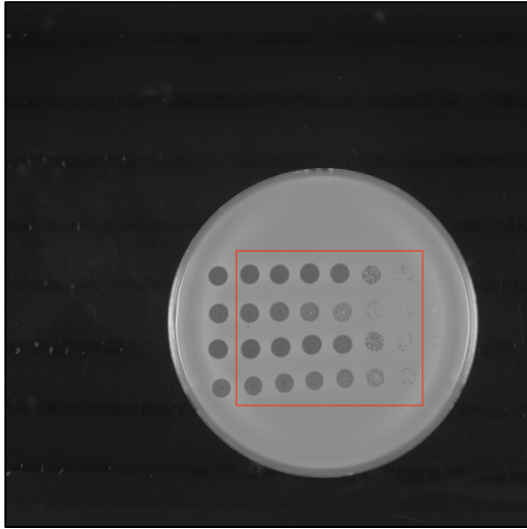
imageJ auto
contrast applied
to image on the
right

Original source images for data obtained by spotting phage on lawns of staphylococci

Box indicates location of cropped images in **Figure S1B**

AP)

AQ)



ϕ NM1

ϕ 80 α

ϕ NM4

ϕ 12

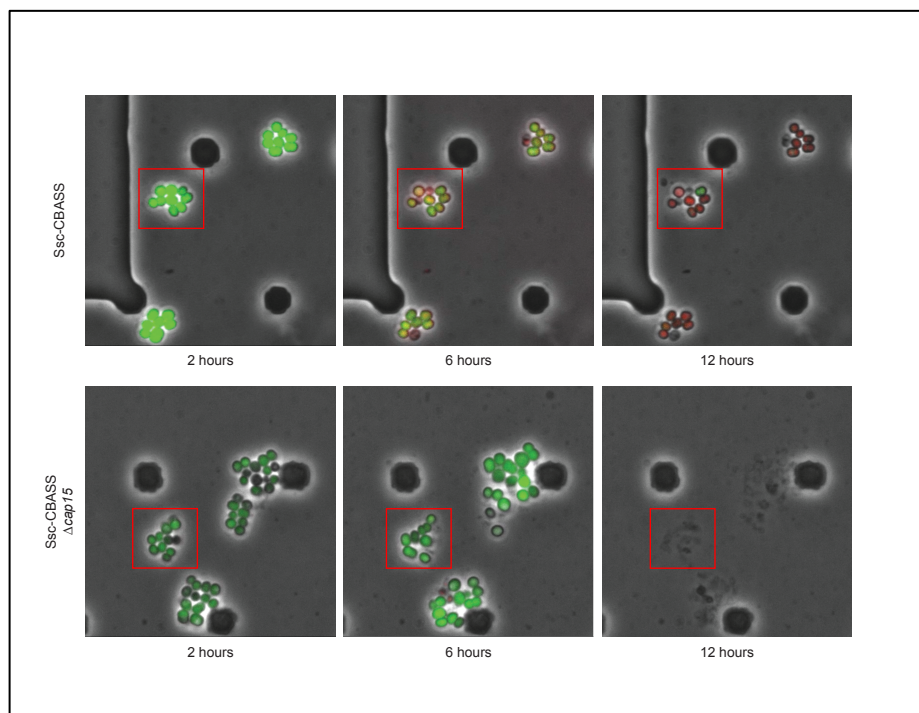
RN4220::SscCdnE03

RN4220::CBASS

Original source images for data obtained by fluorescence confocal microscopy of staphylococci harboring Ssc-CBASS

Box indicates location of cropped images in **Figure S1K**

AR)



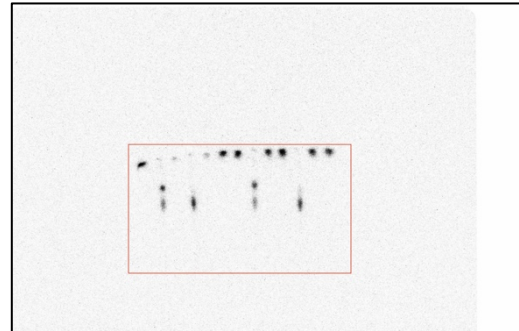
GFP channel = phage replication

RFP channel = propidium iodide staining, representing membrane disruption

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure S2D**

AS)



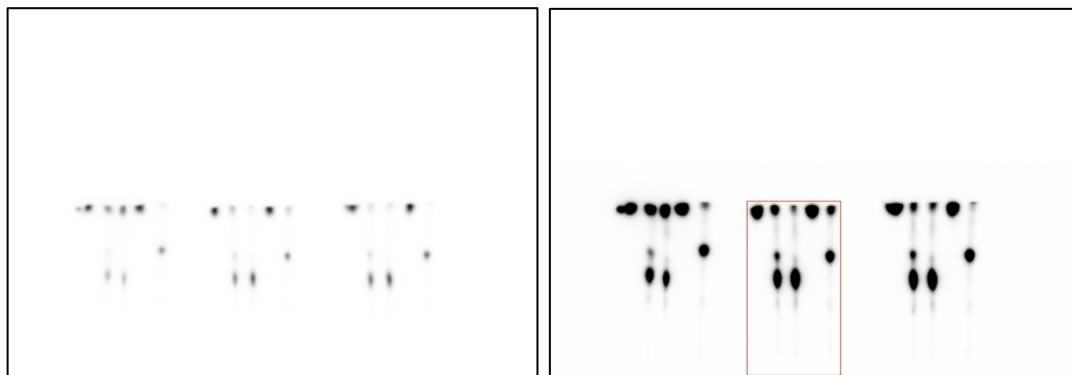
phosphor
screen α -³²P
NTPs

imageJ auto
contrast
applied to
image on the
right

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure S2G**

AT)



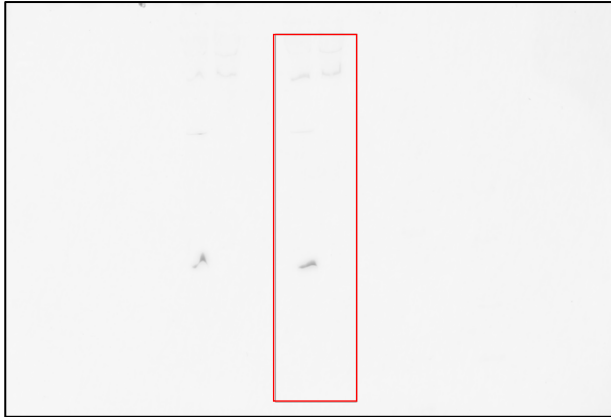
phosphor
screen α -³²P
NTPs

imageJ auto
contrast
applied to
image on
the right

Original source images for data obtained by electrophoretic separation of RNA followed by northern blot

Box indicates location of cropped images in **Figure S2I**

AU)



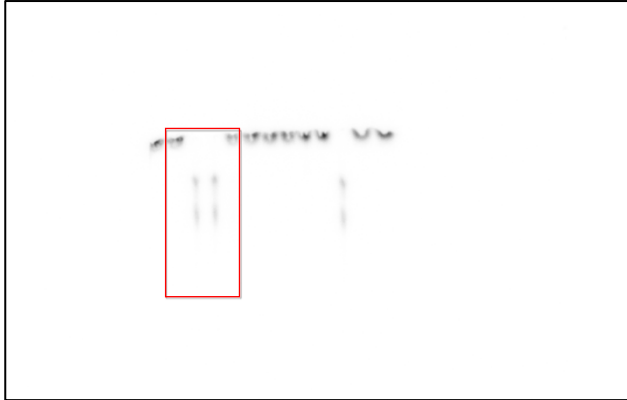
northern blot of one gel/membrane probed with 1
3'FAC dsDNA probe visualized in one fluorescence
channel

Ladder Jena bioscience fluorescent low range
DNA ladder

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging & for data obtained by electrophoretic separation

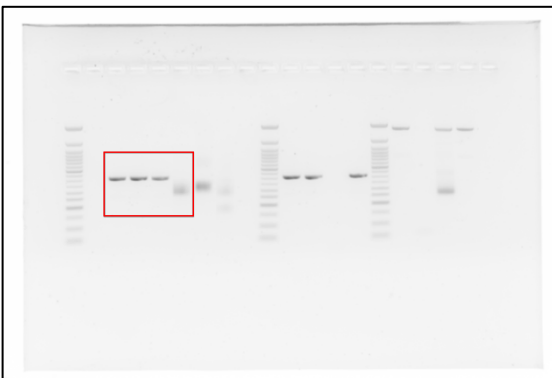
Box indicates location of cropped images in **Figure S3B**

AV)



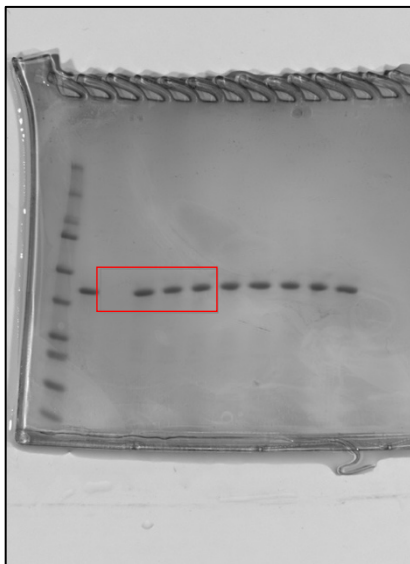
phosphor screen α -³²P NTPs

AW)



stained with ethidium bromide
Ladder: new England biolabs 50 bp DNA ladder

AX)

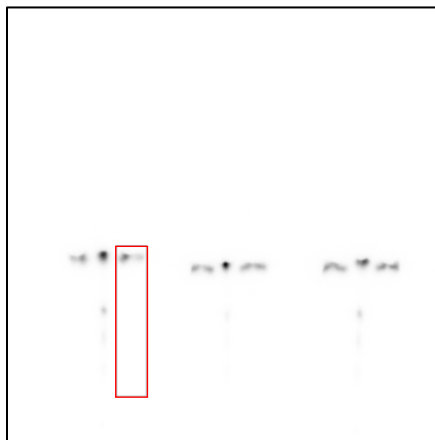
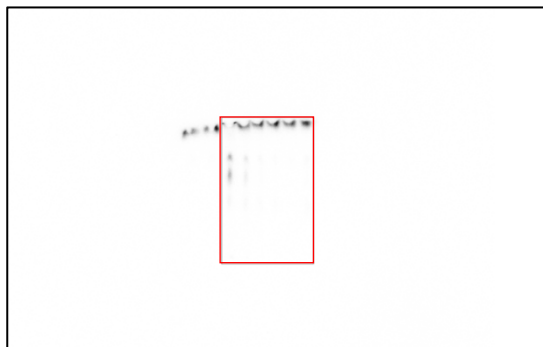


stained with Coomassie blue
Ladder: Bio-rad Precision Plus Protein Dual Color Standard

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure S3C**

AY)

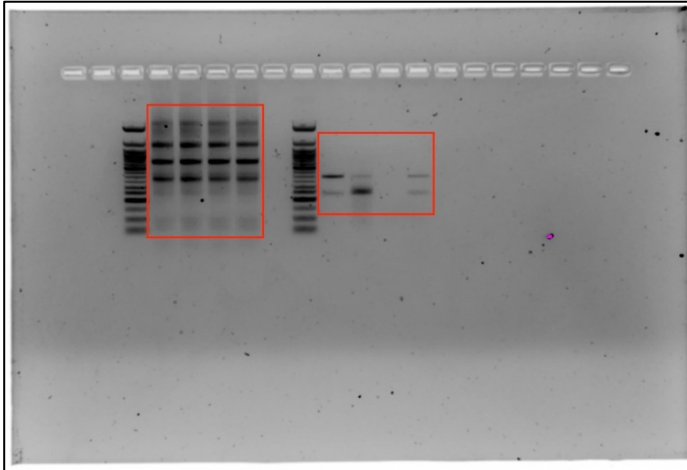


phosphor screen α -³²P NTPs

Original source images for data for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure S3F**

AZ)

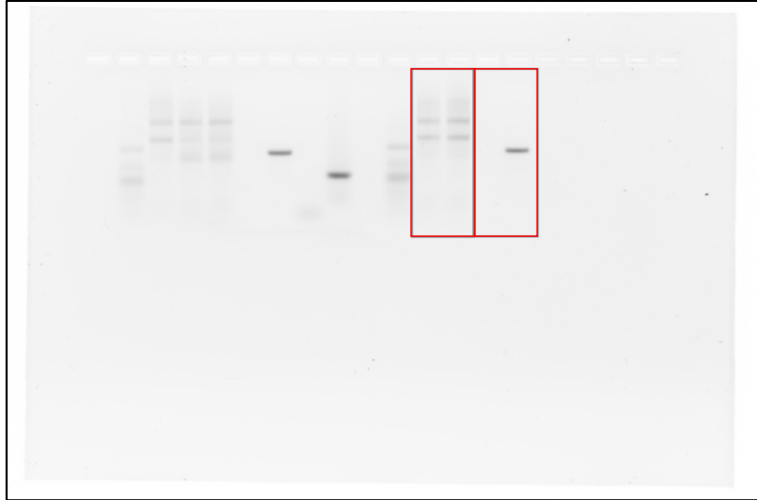


stained with ethidium bromide
Ladder: new England biolabs 50 bp DNA
ladder

Original source images for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure S4G**

BA)



stained with ethidium bromide
Ladder: new England Biolabs 50 bp
DNA ladder

Original source images for data obtained by spotting phage on lawns of staphylococci

Box indicates location of cropped images in **Figure S6A**

BB)

BC)



Replicates EMS
treated phage
libraries

1

2

3

4

5

6

7

wild-type

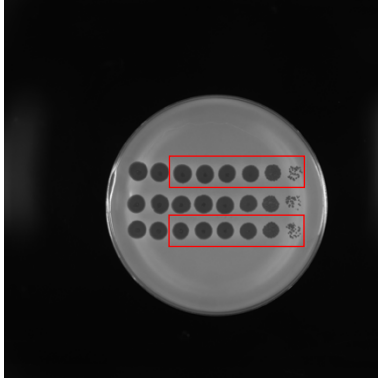
RN4220

RN4220 + pSscCBASS

Original source images for data obtained by spotting phage on lawns of staphylococci

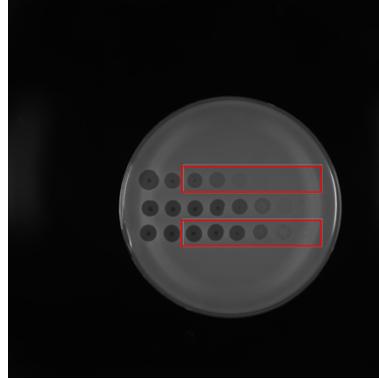
Box indicates location of cropped images in **Figure S6D**

BD)



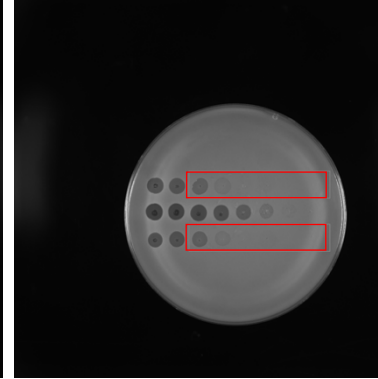
RN4220 + empty vector

BE)



RN4220 + pCBASS

BF)



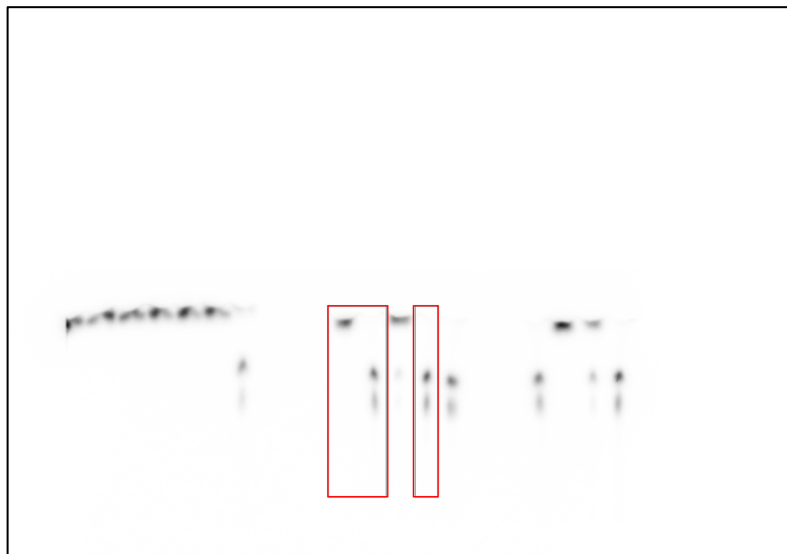
RN4220 + pCBASS + pGp46

ϕ 80 α wt
 ϕ 80 α gp40
S74F
 ϕ 80 α gp46
D105E

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure S6E**

BG)

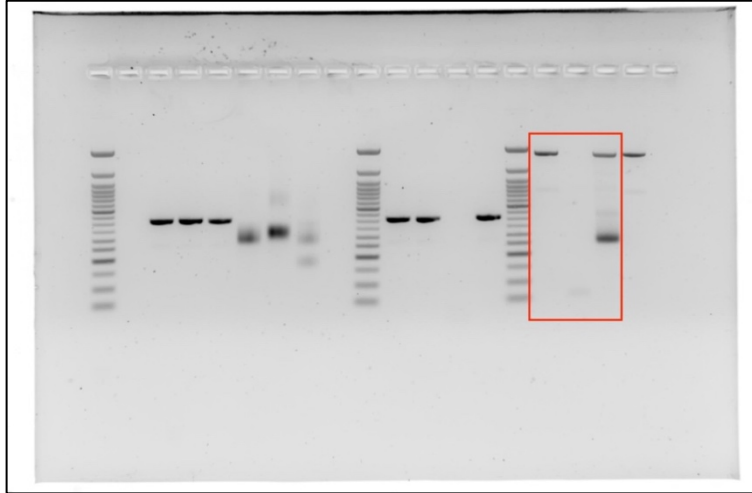


phosphor screen α -³²P NTPs

Original source images for data for data obtained by electrophoretic separation

Box indicates location of cropped images in **Figure S7A**

BH)

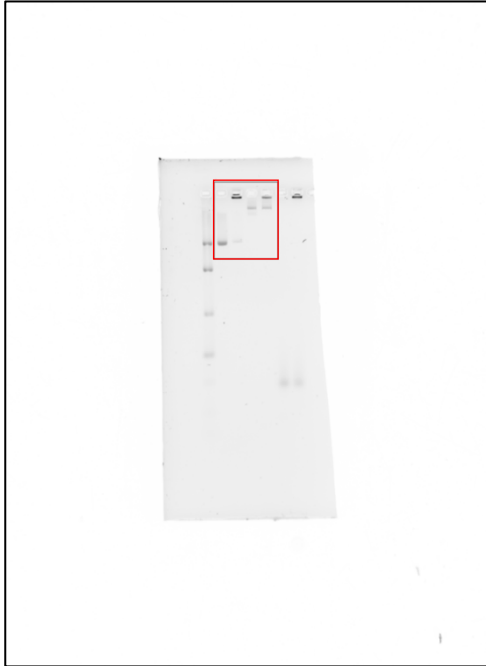


stained with ethidium bromide
Ladder: new England biolabs 50 bp
DNA ladder

Original source images for data for data obtained by electrophoretic mobility assay

Box indicates location of cropped images in **Figure S7B**

BI)



stained with ethidium bromide
Ladder: new England biolabs dsRNA ladder

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure S7D**

BJ)



phosphor screen α -³²P NTPs

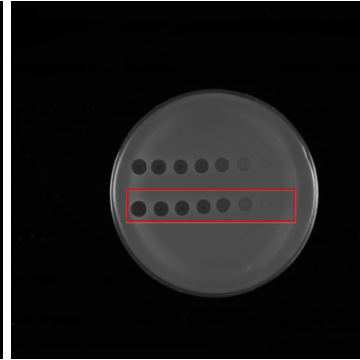
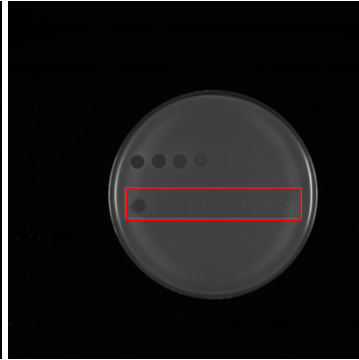
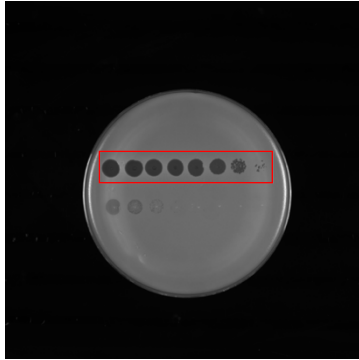
Original source images for data obtained by spotting phage on lawns of staphylococci

Box indicates location of cropped images in **Figure S7E**

BK)

BL)

BM)



ϕ NM1 propagated strains listed below

Spotted serial dilutions on the same strain

RN4220:Ssc-CdnE03 pTerS^{S74F}

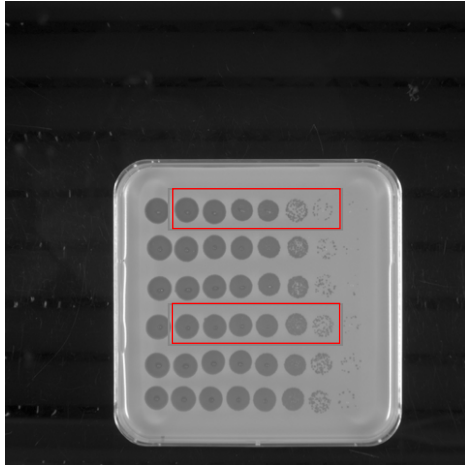
RN4220:Ssc-CBASS pTerS

RN4220:Ssc-CBASS pTerS^{S74F}

Original source images for data obtained by spotting phage on lawns of staphylococci

Box indicates location of cropped images in **Figure S8B**

BN)



RN4220::SscCdnE03

BO)



RN4220::CBASS

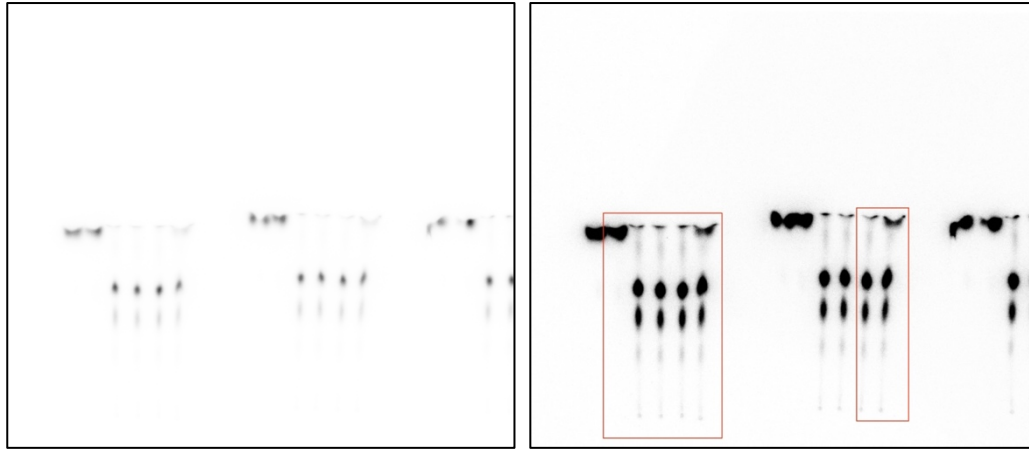
$\phi 80\alpha$ wt

$\phi 80\alpha$ cabRNA¹²²

Original source images for data obtained by TLC separation of cyclic nucleotides followed by phosphor screen imaging

Box indicates location of cropped images in **Figure S8C**

BP)



phosphor
screen α -³²P
NTPs

imageJ auto
contrast applied
to image on the
right

BQ)

Reference for DNA/RNA gel ladders

