piece 1, NC_000913, lysC_pgi-, config: linear, direction: -, begin: 4231810, end: 4231237

```
        *4231810  *       *4231800  *       *4231790  *       *4231780  *       *4231770  *       *4231760  *       *4231750  *       *4231740  *       *4231730
5' a g c g g t c t g c g t t g g a t t g a t g t t t t t c a t t a g c a a t a c t c t t c t g a t t t t g a g a a t t g t g a c t t t g g a a g a t t g t a g c g c 3'
      - ser - gly - leu - arg - trp - ile - asp - val - phe - his - ● -        -        -        - ● -   thr - leu - leu - ile - leu - arg - ile - val - thr - leu - glu - asp - cys - ser - ala -
      - arg - ser - ala - leu - asp - ● -                                                                              -fMet -
... ---------------------------------------------------------] NC_000913.pgi
```

p35   3.6 bits   p10   3.5 bits

p35-(22)-p10 4231775 Gap 2.3 bits
p35-p10 4231775 total 4.7 bits

p10   4.5 bits

p35-(24)-p10 4231773 Gap 2.4 bits
p35-p10 4231773 total 5.7 bits

```
          *       *4231720  *       *4231710  *       *4231700  *       *4231690  *       *4231680  *       *4231670  *       *4231660  *       *4231650
5' c a g t c a c a g a a a a a t g t g a t g g t t t t a g t g c c g t t a g c g t a a t g t t g a g t g t a a a c c c t t a g c g c a a t g a a g c a t t t a t t a 3'
      - ser - his - arg - lys - met -fMet - met - val - leu - val - pro - leu - ala -       -fMet -              -fMet - lys - his - leu - leu -
                                                                           -fMet - leu - ser - val - asn - pro -
```

```
          *       *4231640  *       *4231630  *       *4231620  *       *4231610  *       *4231600  *       *4231590  *       *4231580  *       *4231570
5' g c t g a a c t a c t g a c c g c c a g g a g t g g a t g a a a a a t c c g c a t g a c c c c a t c g t t g a c a a c c g c c c c g c t c a c c c t t t a t t t a 3'
      - ala - glu - leu - leu - thr - ala - arg -        -fMet - thr - pro - ser - leu - thr - thr - ala - pro - leu - thr - leu - tyr - leu -
                                  -fMet - asp - glu - lys - ser - ala -
      -fMet - lys - asn - pro - his - asp - pro - ile - val - asp - asn - arg - pro - ala - his - pro - leu - phe - ile
```

ir lysC_pgi-   p35   6.4 bits   p10   2.6 bits

sd

p35-(22)-p10 4231574 Gap 2.3 bits

sd-(6)-ir 4231622 Gap 4.3 bits   p35-p10 4231574 total 6.7 bits

sd-ir 4231622 lysC_pgi- total 8.2 bits   p10   0.5 bits

p35-(23)-p10 4231573 Gap 1.4 bits
p35-p10 4231573 total 5.5 bits

```
          *       *4231560  *       *4231550  *       *4231540  *       *4231530  *       *4231520  *       *4231510  *       *4231500  *       *4231490
5' t a a a t g t a c t a c c t g c g c t a g c g c a g g c c a g a a g a g g c g c g t t g c c c a a g t a a c g g t g t t g g a g g a g c c a g t c c t g t g a t a 3'
      -fMet - tyr - tyr - leu - arg -                                                                              -fMet - leu - glu - glu - pro - val - leu -       -fMet - ile -
      - asn - val - leu - pro - ala - leu - ala - gln - ala - arg - arg - gly - ala - leu - pro - lys -
```

[###]➤ orf 36 codons

```
          *       *4231480  *       *4231470  *       *4231460  *       *4231450  *       *4231440  *       *4231430  *       *4231420  *       *4231410
5' a c a c c t g a g g g g g t g c a t c g c c g a g g t g a t t g a a c g g c c a c g t t c a t c a t c g g c t a c a g g g g c t g a a t c c c c t g g g t 3'
      - thr - pro - glu - gly - val - his - arg - arg - gly - asp -        -fMet - ile - glu - arg - leu - ala - thr - phe - ile - ile - gly - tyr - arg - gly -
                                  -fMet - asn - gly - trp - pro - arg - ser - ser - ser - ala - thr - gly - ala - glu - ser - pro - gly - leu
```

```
          *       *4231400  *       *4231390  *       *4231380  *       *4231370  *       *4231360  *       *4231350  *       *4231340  *       *4231330  *
5' t g t c a c c a g a a g c g t t c g c a g t c g g g c g t t t c g c a a g t g g g a g c a c t t c t g g g t g a a a t a g t a g c g a a g t a t c g t c t 3'
                                  -fMet - val - glu - his - phe - trp - val - lys - ile - val - ala - lys - tyr - arg - ser -
      - ser - pro - glu - ala - phe - ala - val - gly - arg - phe - ala - ser - gly - gly - ala - leu - leu - gly - glu - asn - ser - ser - glu - val - ser - leu - cys -
```

```
          *       *4231320  *       *4231310  *       *4231300  *       *4231290  *       *4231280  *       *4231270  *       *4231260  *       *4231250  *
5' g c g c c c a c c c g t c t t c c g c t c t c t t c c c t t g t g c c a a g g c t g a a a a t g g a t c c c t g c a c a c g a g g t a g t t a t g t c t g a a a t t g 3'
      - ala - pro - thr - arg - leu - pro - leu - phe - pro - cys - ala - lys - ala - asn - gly - asp - thr - arg -                                                   -fMet -
                                  -fMet - pro - arg - leu - lys - met - asp - pro - leu - thr - arg - gly - ser - tyr - val -
      - ala - his - pro - ser - ser - ala - leu - pro - leu - cys - gln - gly -                                                   -fMet - asn - glu - ile - val -
```

ir lysC_pgi-   [------------------------ ... NC_000913.lysC

- 2 -

sd

sd

[###> orf 11 codons

{-------------} sd-(7)-ir 4231281 Gap 3.7 bits

... ir

|-------------| sd-ir 4231281 lysC_pgi- total 5.1 bits

{-----------} sd-(6)-ir 4231256 Gap 4.3 bits

|-----------| sd-ir 4231256 lysC_pgi- total 8.3 bits

*4231240

5' t t g t c t c 3'

- leu - ser -

- - -

- val -

... -------------- ... NC_000913.lysC

... ir lysC_pgi-