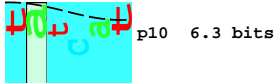piece 1, NC_000913, gltA_sdhC-, config: linear, direction: -, begin: 754429, end: 753672

```
        *      *754420    *      *754410    *      *754400    *      *754390    *      *754380    *      *754370    *      *754360    *      *754350
5' a g g t c t t t g t t t t t t c a c a t t t c t t a t c a t g a a t a a c g c c c a c a t g c t g t t c t t a t t a t t c c c t g g g g a c t a c g g g c a c a g 3'
     - arg - ser - leu - phe - phe - his - ile - ser - tyr - his - glu -      asn - asn - ala - his - met - leu - phe - leu - leu - phe - pro - gly - asp - tyr - gly - his - arg -
       - gly - leu - cys - phe - phe - thr - phe - leu - ile - met -          asn - asn - ala - his - met - leu - phe - leu - leu - phe - pro - gly - asp - tyr - gly - his - arg -
         - val - phe - val - phe - ser - his - phe - leu - ser -         -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -
```
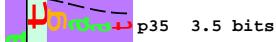
... ---] NC_000913.sdhC

p10   2.5 bits

p35   0.4 bits

p10   6.3 bits

p10   7.1 bits
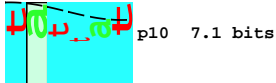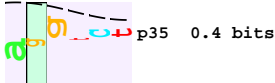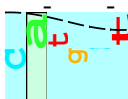
p35-(24)-p10 754404 Gap 2.4 bits
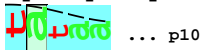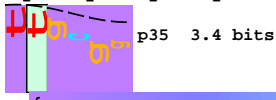p35-p10 754404 total 4.3 bits

p35   4.5 bits
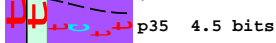
p35-(23)-p10 754386 Gap 1.4 bits
p35-p10 754386 total 5.5 bits

p35   3.5 bits

p35-(25)-p10 754375 Gap 4.0 bits
p35-p10 754375 total 6.5 bits

```
        *      *754340    *      *754330    *      *754320    *      *754310    *      *754300    *      *754290    *      *754280    *      *754270
5' a g g t t a a c t t t c t g t t a c c t g g a g a c g t c g g g a t t c c t t c c t c c g t c t g c t t g c g g g t c a g a c a g c g t c c t t t c t a t a a 3'
     - gly -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    - -fMet - arg - val - arg - gln - arg - pro - phe - tyr - asn -
```

p35   3.4 bits

... p10

p35-(24)-p10 754271 Gap 2.4 bits
p35-p10 754271 total 5.0 bits

```
        *      *754260    *      *754250    *      *754240    *      *754230    *      *754220    *      *754210    *      *754200    *      *754190
5' c t g c g c g t c a t g c a a a a c a c t g c t t c c a g a t g c g a a a a c g a c a c g t t a c a a c g c t g g g t g g c t c g g g a t t g c a g g g t g t t c 3'
       -      -    - -fMet - gln - asn - thr - ala - ser - arg - cys - glu - asn - asp - thr - leu - gln - arg - trp - val - ala - arg - asp - cys - arg - val - phe -
         - cys - ala - ser - cys - lys - thr - leu - leu - pro - asp - ala - lys - thr - thr - arg - tyr - asn - ala - gly - trp - leu - gly - ile - ala - gly - cys - ser -
                                                         - -fMet - arg - lys - arg - his - val - thr - thr - leu - gly - gly - ser - gly - leu - gln - gly - val - pro -
```
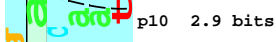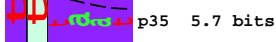
... p10   4.1 bits

```
        *      *754180    *      *754170    *      *754160    *      *754150    *      *754140    *      *754130    *      *754120    *      *754110
5' c g g a g a c c t g g c g g c a g t a t a g g c t g t t c a c a a a t c a t t a c a a t t a a c c t a c a t a t a g t t t g t c g g g t t t t a t c c t g a a c 3'
       - arg - arg - pro - gly - gly - ser - ile - gly - cys - ser - gln - asn - his - tyr - asn -    -    -    -    -    - -fMet - ser - gly - phe - ile - leu - asn -
         - gly - asp - leu - ala - ala - val -         - gly - cys - ser - gln - asn - his - tyr - asn -    -    -    -    -    -    -    -    -    -    -    -    -
           - glu - thr - trp - arg - gln - tyr - arg - leu - phe - thr - lys - ser - leu - gln - leu - thr - tyr - ile -    -    -    -    -    -    -    -    -    -
```

```
        *      *754100    *      *754090    *      *754080    *      *754070    *      *754060    *      *754050    *      *754040    *      *754030    *
5' a g t g a t c c a g g t c a c g a t a a c a a c a t t t a t t t a a t t t t t a a t c a t c t a a t t t g a c a a t c a t t c a a c a a a g t g t t a c a a a c 3'
       - ser - asp - pro - gly - his - asp - asn - asn - ile - tyr - leu - ile - phe - asn - his - leu - ile -    -    -    - -fMet - leu - gln - thr -
     - -fMet - ile - gln - val - thr - ile - thr - thr - phe - ile -    - ile - phe - asn - his - leu - ile -    - -fMet - thr - ile - ile - gln - gln - ser - cys - tyr - lys - his -
       -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    - -fMet - leu - gln - thr -
```

p35   4.8 bits

p10   4.4 bits

... sd
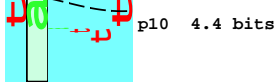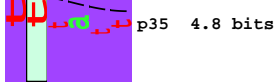
p35   2.3 bits

p35-(21)-p10 754058 Gap 3.3 bits

p35-p10 754058 total 5.9 bits

... p35-(24)-p10 754007 Gap

... p35-p10 754007 total 8.3

p35   5.7 bits

p10   2.9 bits

p35-(23)-p10 754052 Gap 1.4 bits
p35-p10 754052 total 7.1 bits
p10 2.6 bits

p35-(26)-p10 754049 Gap 3.7 bits
p35-p10 754049 total 4.5 bits

```
         *754020   *      *754010   *      *754000   *      *753990   *      *753980   *      *753970   *      *753960   *      *753950   *
5' attaccaggaaaagcatataatgcgtaaaagttatgaagtcggtatttcacctaagattaacttatgtaacagtgtggaag 3'
```

- leu - pro - gly - lys - ala - tyr - asn - ala -   -fMet - lys - ser - val - phe - his - leu - arg - leu - thr - tyr - val - thr - val - trp - lys -
- tyr - gln - glu - lys - his - ile - met - arg - lys -   - tyr - glu - val - gly - ile - ser - pro - lys - ile - asn - leu - cys - asn - ser - val - glu - val -

sd   ir gltA_sdhC-

sd-(12)-ir 754004 Gap 4.0 bits
p35-(24)-p10 754007 Gap 2.4 bits
p35-p10 754007 total 8.3 bits
sd-ir 754004 gltA_sdhC- total 13.6 bits

sd   ir gltA_sdhC-

sd-(11)-ir 753991 Gap 3.0 bits
sd-ir 753991 gltA_sdhC- total 6.3 bits
p10 8.4 bits

```
         *753940   *      *753930   *      *753920   *      *753910   *      *753900   *      *753890   *      *753880   *      *753870   *
5' tattgaccaattcattcggacagttattagtggtagacaagtttaataattcggattctaagtacttgattcgccattt 3'
```

- tyr -   -fMet - val - asp - lys - phe - asn - asn - ser - asp - cys -   -fMet - ile - arg - his - leu -
- leu - thr - asn - ser - phe - gly - thr - val - ile - ser - gly - arg - gln - val -   -fMet - leu - ser - thr -

[###> orf 18 codons   p10 2.0 bits   [###> orf 36 codons   [###> orf 11 codons   ... p10

sd   ir gltA_sdhC-   p35 5.2 bits

p35 5.0 bits   sd-(11)-ir 753913 Gap 3.0 bits   p35-(22)-p10 753864 Gap 2.3 bits

sd-ir 753913 gltA_sdhC- total 5.1 bits   p35-p10 753864 total 5.5 bits
p35-(23)-p10 753917 Gap 1.4 bits
p35-p10 753917 total 5.5 bits

```
         *753860   *      *753850   *      *753840   *      *753830   *      *753820   *      *753810   *      *753800   *      *753790   *
5' attcgtcatcaatggatcctttacctgcaagcgcccagagctctgtacccaggtttttcccctctttcacagagcggcgagc 3'
```

- phe - val - ile - asn - gly - ser - phe - thr - cys - lys - arg - pro - glu - leu - cys - thr - gln - val - phe - pro - ser - phe - thr - glu - arg - arg - ala -
-          -fMet - asp - pro - leu - pro - ala - ser - ala - gln - ser - ser - val - pro - arg - phe - ser - pro - leu - ser - gln - ser - gly - glu - pro -

... p10 2.6 bits

```
         *753780   *      *753770   *      *753760   *      *753750   *      *753740   *      *753730   *      *753720   *      *753710   *
5' caaataaaaaaacgggtaaagccaggttgatgtgcgaaggcaaatttaagttccggcagtcttacgcaataaggcgctaagg 3'
```

-          -fMet - arg - arg - gln - ile -
- lys -   -fMet - met - cys - glu - gly - lys - phe - lys - phe - arg - gln - ser - tyr - ala - ile - arg - arg -
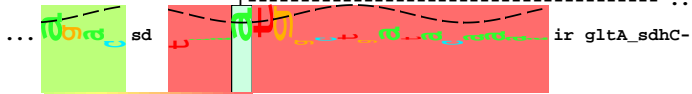- asn - lys - lys - arg - val - lys - pro - gly -

sd

ir gltA_sdhC-

[###> orf 17 codons

... sd
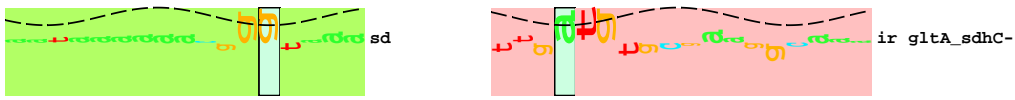
{--------------------------} sd-(14)-ir 753753 Gap 4.9 bits

|--------------------------| sd-ir 753753 gltA_sdhC- total 6.4 bits

{- ... sd-(10)-ir 753691 Gap
|- ... sd-ir 753691 gltA_sdhC- t

```
       *753700     *        *753690    *       *753680    *
5'  a g a c c t t a a a t g g c t g a t a c a a a a g c a a a  3'
     -       -       -   -fMet - ala - asp - thr - lys - ala -
     -       -       -       -       -       -       -       -
```

... NC_000913.gltA

... sd

ir gltA_sdhC-

... {-------------------} sd-(10)-ir 753691 Gap 2.7 bits
... |-------------------| sd-ir 753691 gltA_sdhC- total 12.1 bits