- 1 -

piece 1, NC_000913, cspF_TERM25+, config: linear, direction: +, begin: 1640062, end: 1640399

```
          *      *1640070   *      *1640080   *      *1640090   *      *1640100   *      *1640110   *      *1640120   *      *1640130   *      *1640140
5' c c t t c a g c t g c c a a t g t t t a c c t t t c a t g a g c t a t a t t a a a g c t t t a a t t t c a g g c c c c a t c g g a t c a c a c a t g g a g a g t t 3'
   - pro - ser - ala - ala - asn - val - tyr - leu - ser -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
   -   - leu - gln - leu - pro - met - phe - thr - phe - his - glu - leu - tyr -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
   - phe - ser - cys - gln - cys - leu - pro - phe - met - ser - tyr - ile - lys - ala - leu - ile - ser - gly - pro - ile - gly - ser - his - met - glu - ser - phe -
```
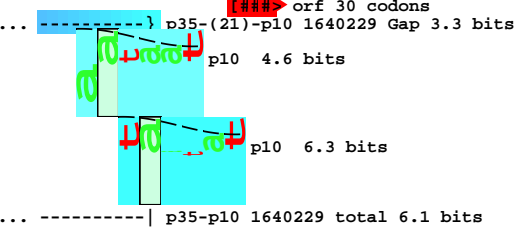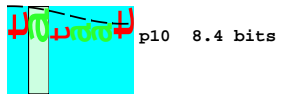
p35   5.3 bits   p10   4.5 bits   sd

p35-(21)-p10 1640106 Gap 3.3 bits   ... sd-(10)-ir 1640146 Gap
p35-p10 1640106 total 6.5 bits   ... sd-ir 1640146 cspF_TERM25

p10   1.8 bits

p35-(22)-p10 1640107 Gap 2.3 bits
p35-p10 1640107 total 4.8 bits

p10   4.4 bits

p35-(23)-p10 1640108 Gap 1.4 bits
p35-p10 1640108 total 8.3 bits
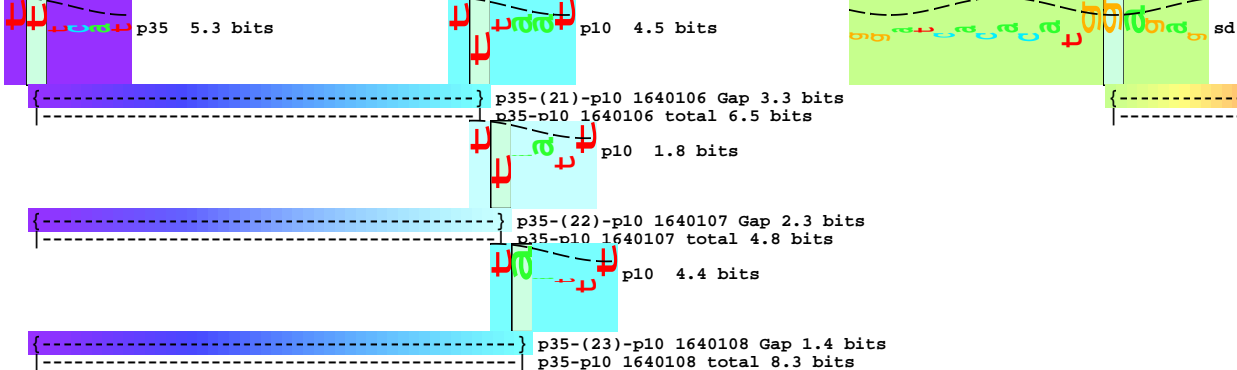
```
          *      *1640150   *      *1640160   *      *1640170   *      *1640180   *      *1640190   *      *1640200   *      *1640210   *      *1640220
5' t t t a t g a a t a a c c c c g t c t g t c t t g a t g a c t g g t t a g c t t a a a a g c t t a t g c t g t a c t t t g g c t t a a t a g c t c t g 3'
   -   -fMet - asn - asn - pro - val - cys - leu - asp - asp - trp - leu - ile - gly - phe - lys -   - leu - cys - cys - thr - leu - ala - val - ile - ala - leu -
   -   -   -   -   -   -   -   -   -fMet - met - thr - gly -   - -fMet - ala - leu - lys - ala - tyr - ala - val - leu - trp - pro -   -   -   -   -
   - tyr - glu -   -   -   -   -   -   -   -   -   -   -   -   -   -   - -fMet - leu - tyr - phe - gly - arg - asn - ser - ser - ala -
```

ir cspF_TERM25+   p35   1.7 bits   p10   2.5 bits   p10   3.8 bits

p35   4.7 bits   p10   5.3 bits   { ... p35-(21)-p10 1640229 Gap

... sd-(10)-ir 1640146 Gap 2.7 bits

... sd-ir 1640146 cspF_TERM25+ total 11.7 bits

p35-(22)-p10 1640196 Gap 2.3 bits

p35-(22)-p10 1640188 Gap 2.3 bits   p35   3.0 bits

p35-p10 1640188 total 4.9 bits   p35-p10 1640229 total 6.1
p35-p10 1640196 total 4.7 bits

p35   5.7 bits   p35   3.5 bits

p35-(26)-p10 1640203 Gap 3.7 bits
p35-p10 1640203 total 5.7 bits

... p35-(26)-p10 1640227 Gap
p35-p10 1640227 total 4.4
... p35-(24)-p10 1640232 Gap
p35-p10 1640232 total 9.0

```
          *      *1640230   *      *1640240   *      *1640250   *      *1640260   *      *1640270   *      *1640280   *      *1640290   *      *1640300
5' c t a a t a a t a t a a t a g c a g a c t c a t t g t g t t t a g g g a c a t t g t a c t g g a a g a a a a c a t t t a a a c a t c a g g c a a a t a a c c a 3'
   - leu - ile - ile -   -   -   -   - -fMet - cys - leu - gly - thr - leu - tyr - trp - lys - lys - thr - phe -   -   -   -   -   -   -   -   -
   - asn - asn - ile - ile - ser - arg -   - leu - ile - val - phe - arg - asp - ile - val - leu - glu - glu - asn - ile - leu - asn - ile - arg - gln - ile - thr - lys -
```
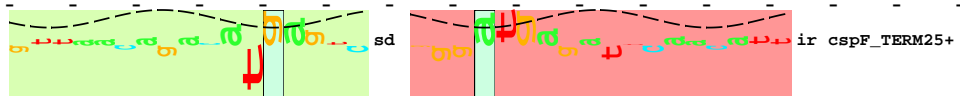
orf 30 codons

... p35-(21)-p10 1640229 Gap 3.3 bits

p10   4.6 bits

p10   6.3 bits

... p35-p10 1640229 total 6.1 bits

p10 8.4 bits

... ------} p35-(26)-p10 1640227 Gap 3.7 bits
... ------| p35-p10 1640227 total 4.4 bits
... =============} p35-(24)-p10 1640232 Gap 2.4 bits
... --------------| p35-p10 1640232 total 9.0 bits

```
        *        *1640310   *       *1640320    *        *1640330   *        *1640340    *        *1640350    *        *1640360    *        *1640370    *        *1640380    *
5' a g t c a c c a g c t a a a t a a t a a g t t a a c a g a c a t g a g t c c c g g g a t g a g a t t c a a c a t t a c c a t t g c c c c a t t t a a a g c a c a a 3'
   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -  -fMet - ser - pro - gly - met - arg - phe - asn - ile - thr - ile - ala - pro - phe - lys - ala - gln -
   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -    -   -   -   -   -   -fMet - pro - his - leu - lys - his - lys -
      - ser - pro - ala - lys -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
```

sd

ir cspF_TERM25+

{--------------------} sd-(10)-ir 1640347 Gap 2.7 bits
|--------------------| sd-ir 1640347 cspF_TERM25+ total 6.9 bits

```
        *1640390   *
5' a a c c c g c t c a t c a g 3'
   - asn - pro - leu - ile -
      - thr - arg - ser - ser -
        -   -   -   -   -
```