piece 1, NC_000913, trmA_btuB+, config: linear, direction: +, begin: 4161264, end: 4161681
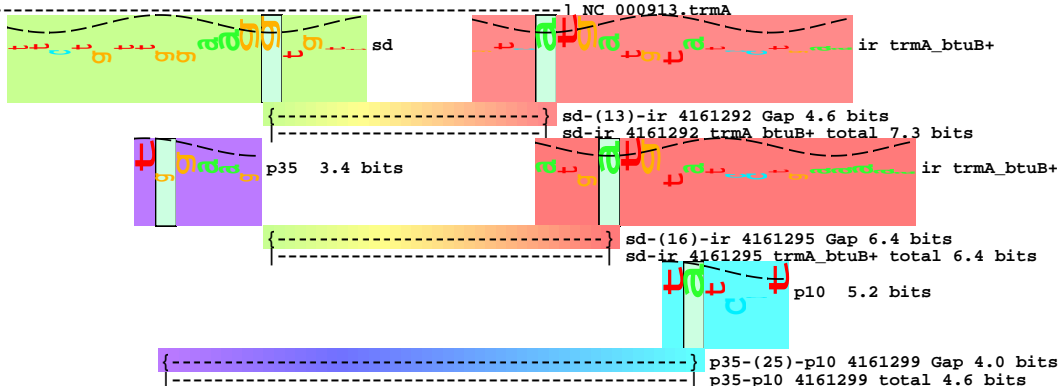
```
         *       *4161270  *        *4161280  *        *4161290  *        *4161300  *        *4161310  *        *4161320  *        *4161330  *        *4161340
5' c t g t t c t g t t g g a a g g t g t t c g g g g g t c a t g a t g t a t c c t g a a a a a t t a a a g t a c g c g g c g a t t g t a g g g a t t g c t c a t c a 3'
   - leu - phe - cys - trp - lys - val - phe - gly - gly - his - asp - val - ser -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -
      - cys - ser - val - gly - arg - cys - ser - gly - val - met - met - tyr - pro - glu - lys - leu - lys - tyr - ala - ala - ile - val - gly - ile - ala - his - gln -
         - val - leu - leu - glu - gly - val - arg - gly - ser -    -    -    -    -    -    -    -    -    -    -    - fMet -    - fMet - leu - ile - arg -
```

sd
ir trmA_btuB+

{- - - - - - - - - - - - - - -} sd-(13)-ir 4161292 Gap 4.6 bits
|- - - - - - - - - - - - - - -| sd-ir 4161292 trmA_btuB+ total 7.3 bits

p35   3.4 bits
ir trmA_btuB+

{- - - - - - - - - - - - - - -} sd-(16)-ir 4161295 Gap 6.4 bits
|- - - - - - - - - - - - - - -| sd-ir 4161295 trmA_btuB+ total 6.4 bits

p10   5.2 bits

{- - - - - - - - - - - - - - - - - - - -} p35-(25)-p10 4161299 Gap 4.0 bits
|- - - - - - - - - - - - - - - - - - - -| p35-p10 4161299 total 4.6 bits

```
         *       *4161350  *        *4161360  *        *4161370  *        *4161380  *        *4161390  *        *4161400  *        *4161410  *        *4161420  *
5' g a t g t c c a g a t c t t g a t g a a t t c c t a t t t g t g a g c t a c g t c t g g a c a g t a a c t t g t t a c a a c c t g t a g c a t c c a c t t g c c g 3'
   -    -    -    -    -    - fMet - met - asn - ser - tyr - leu -    -    -    -    -    -    -    -    -    - fMet - leu - gln - pro - val - ala - ser - thr - cys - arg -
      - met - ser - arg - ser -    -    - phe - leu - phe - val - ser - tyr - val - trp - thr - val - thr - cys - tyr - asn - leu -    -    -    -    -    -    -    -
         - cys - pro - asp - leu - asp - glu - phe - leu - phe - val - ser - tyr - val - trp - thr - val - thr -    -    -    -    -    -    -    -    -    -    -    -
```
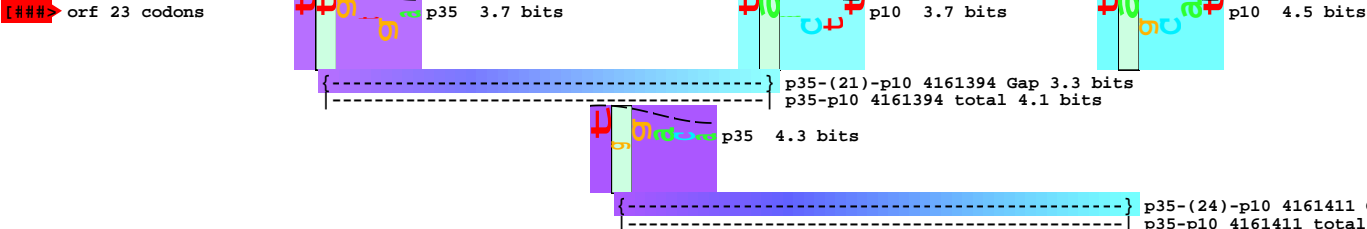
[###]> orf 23 codons
p35   3.7 bits
p10   3.7 bits
p10   4.5 bits

{- - - - - - - - - - - - - - - - - - - -} p35-(21)-p10 4161394 Gap 3.3 bits
|- - - - - - - - - - - - - - - - - - - -| p35-p10 4161394 total 4.1 bits

p35   4.3 bits

{- -} p35-(24)-p10 4161411 Gap 2.4 bits
|- -| p35-p10 4161411 total 6.4 bits

```
         *       *4161430  *        *4161440  *        *4161450  *        *4161460  *        *4161470  *        *4161480  *        *4161490  *        *4161500  *
5' g t c c t g t g a g t t a a t a g g g a a t c c a g t g c g a a t c t g g a g c t g a c g c g c a g c g g t a a g g a a a g g t g c g a t g a t t g c g t t a t g 3'
   - val - leu -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    - fMet -
      - ser - cys - glu - leu - ile - gly - asn - pro - val - arg - ile - trp - ser -    -    -    -    -    -    - fMet - arg -    - fMet - arg - tyr - ala -
         - fMet - ser -    -    -    -    -    -    -    -    -    -    -    -    -    -    - fMet - ile - ala - leu - cys -
```
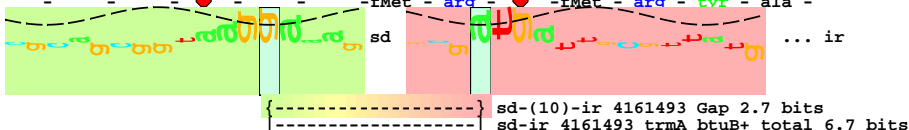
sd
... ir

{- - - - - - - - - - -} sd-(10)-ir 4161493 Gap 2.7 bits
|- - - - - - - - - - -| sd-ir 4161493 trmA_btuB+ total 6.7 bits

```
         *       *4161510  *        *4161520  *        *4161530  *        *4161540  *        *4161550  *        *4161560  *        *4161570  *        *4161580  *
5' c g g a c a c t g c c a t t c g g t g g g a a g t c a t c a t c t c t t a g t a t c t t a g a t a c c c c t c c a a g c c c g a a g a c c t g c g g c c a a c g 3'
   - arg - thr - leu - pro - phe - gly - gly - lys - ser - ser - ser - leu - ser - ile - leu - asp - thr - pro - pro - ser - pro - lys - thr - cys - arg - pro - thr -
      - gly - his - cys - his - ser - val - gly - ser - his - his - leu - leu - val - ser -    -    -    -    -    -    -    -    -    -    -    -    -    -
         - asp - thr - ala - ile - arg - trp - glu - val - ile - ile - ser -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -    -
```

... ir trmA_btuB+
[###]> orf 20 codons

```
         *       *4161590  *        *4161600  *        *4161610  *        *4161620  *        *4161630  *        *4161640  *        *4161650  *        *4161660  *
5' t c g c a t c t g g t t c t c a t c a t c g c g t a a t a t t g a t g a a a c t g c g g c a t c c t t c t t c t a t t g t g g a t g c t t t a c a a t g a t t a 3'
   - ser - his - leu - val - leu - ile - ile - ala -    -    -    -    -    -    -    -    -    -    -    -    -    -    - fMet - trp - met - leu - tyr - asn - asp -
      -    -    -    -    -    -    -    -    -    -    - fMet - asp - glu - thr - ala - ala - ser - phe - phe - tyr - cys - gly - cys - phe - thr - met - ile - lys -
         - fMet - met - lys - pro - ala - ala - ser - phe - phe - tyr - cys - gly - cys - phe - thr -    -    -    -
```

p35   3.3 bits
sd
[- - - - - - - - - - - - - ... NC_000913.btuB

p10 4.6 bits

... ir

sd-(11)-ir 4161662 Gap 3.0 bits
sd-ir 4161662 trmA_btuB+ total 12.7 bits

p35-(24)-p10 4161645 Gap 2.4 bits
p35-p10 4161645 total 5.5 bits

*4161670 * *4161680
5' a a a a g c t t c g c t 3'

lys - ala - ser -

... ------------------------------ ... NC_000913.btuB

... ir trmA_btuB+