piece 1, NC_000913, rpiR_rpiB+, config: linear, direction: +, begin: 4310985, end: 4311392

```
      *      *4310990  *       *4311000  *      *4311010  *      *4311020  *      *4311030  *      *4311040  *      *4311050  *      *4311060  *
5' aagcgctgaatcaaactctgactggctcatcacgttctcttgtccttgaattgaagacgccactatatcaccacagcaaga 3'
   - lys - arg -        - fMet - ser - leu - asn -
   - ser - ala - glu - ser - asn - ser - asp - trp - leu - ile - thr - phe - ser - cys - pro -
   ... - ala - leu - asn - gln - thr - leu - thr - gly - ser - ser - arg - ser -    leu - val - leu - glu - leu - lys - thr - pro - leu - tyr - his - his - ser - lys - asn -
   ------------------------------------------] NC_000913.rpiR
```
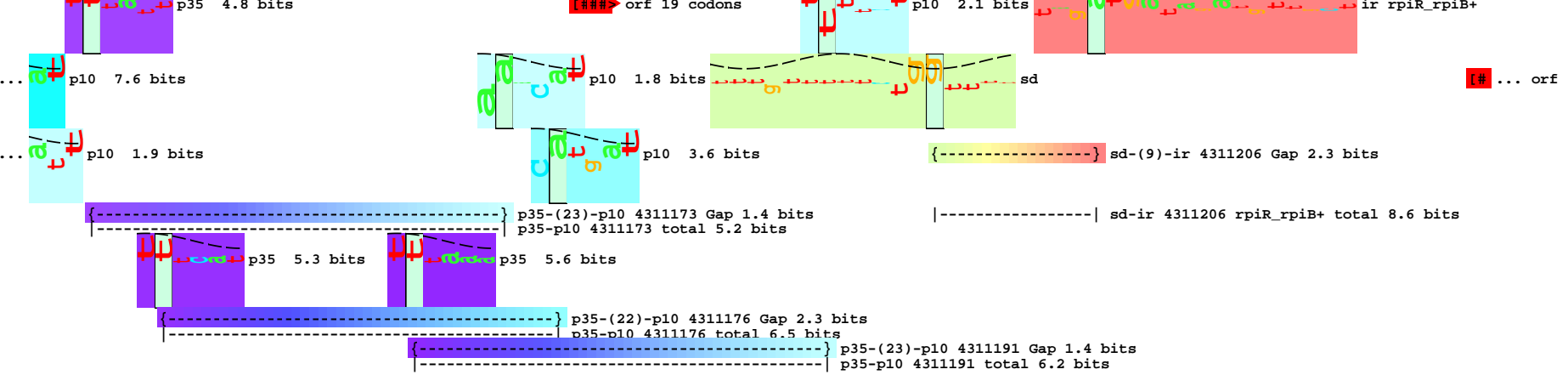
```
      *4311070  *      *4311080  *      *4311090  *      *4311100  *      *4311110  *      *4311120  *      *4311130  *      *4311140  *
5' acagaaaagatgctggcgacttcacaaaaaataaaatttataaagtttattttattgtgaacaatggcgagtggcttaaa 3'
   -     -     -     - fMet - leu - ala - thr - ser - gln - lys - asn - lys - ile - tyr - lys - val - tyr - phe - ile - val - asn - asn - gly - glu - trp - leu - lys -
                                                                                                              - fMet -              - fMet - ala - ser - gly - leu - lys -
   - arg - lys - asp - ala - gly - asp - phe - thr - lys - lys -                                                                                   - fMet - ala -
```

p35   1.2 bits

sd

ir rpiR_rpiB+

p10   7.6 bits   {----------------} sd-(12)-ir 4311123 Gap 4.0 bits   ... p10

|---------------------| sd-ir 4311123 rpiR_rpiB+ total 5.3 bits   ... p10

{----------------------------------} p35-(23)-p10 4311099 Gap 1.4 bits   p10   3.2 bits

|--------------------------------------| p35-p10 4311099 total 7.4 bits   p35   3.7 bits

p35   4.7 bits   {------------------------------} p35-(22)-p10 4311144 Gap 2.3 bits

{------------------------------------} p35-(23)-p10 4311127 Gap 1.4 bits

|------------------------------------| p35-p10 4311127 total 6.4 bits

|--| p35-p10 4311144 total 9.0 bits

{--------------------------------} p35-(23)-p10 4311145 Gap 1.4 bits

|--------------------------------| p35-p10 4311145 total 4.2 bits

```
      *4311150  *      *4311160  *      *4311170  *      *4311180  *      *4311190  *      *4311200  *      *4311210  *      *4311220  *
5' atttttattcattaattagtttaaaaacatgatgttatttgttttctggttttttagatgatagatgttgctggatggt 3'
   - ile - leu - phe - his - leu - ile - ser - leu - lys - thr -        - fMet - phe - phe - trp - phe - phe - arg -     - fMet - leu - leu - asp - gly -
   - phe - tyr - phe - ile -        -     -     -     - fMet - met - leu - phe - val - phe - leu - val - phe -    - fMet - ile - asp - val - ala - gly - trp -
                                                                                                                                          - fMet - val -
```
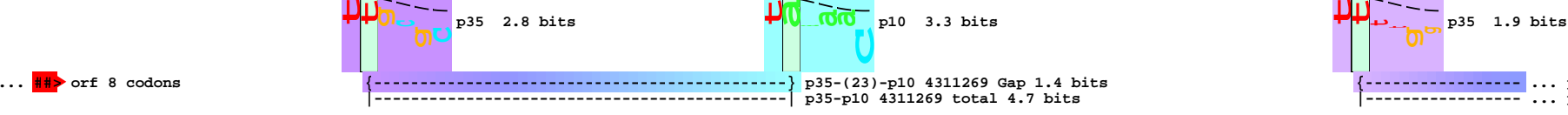
p35   4.8 bits   [###> orf 19 codons   p10   2.1 bits   ir rpiR_rpiB+

... p10   7.6 bits   p10   1.8 bits   sd   [# ... orf

... p10   1.9 bits   p10   3.6 bits   {----------------} sd-(9)-ir 4311206 Gap 2.3 bits

{----------------------------------} p35-(23)-p10 4311173 Gap 1.4 bits |-----------------| sd-ir 4311206 rpiR_rpiB+ total 8.6 bits

|------------------------------------| p35-p10 4311173 total 5.2 bits

p35   5.3 bits   p35   5.6 bits

{------------------------------} p35-(22)-p10 4311176 Gap 2.3 bits

|------------------------------| p35-p10 4311176 total 6.5 bits

{----------------------------------} p35-(23)-p10 4311191 Gap 1.4 bits

|------------------------------------| p35-p10 4311191 total 6.2 bits

```
        *4311230  *       *4311240  *       *4311250  *       *4311260  *       *4311270  *       *4311280  *       *4311290  *       *4311300  *
5' gagtgtctttaacgctattgcgctgtcagatgtaactctgtaaaacagatcaggaaggcgtaattcatcgattttgggtgt 3'
  - glu - cys - leu -  ●  -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   ●  -   -   -   -   -   -   -   - fMet - gly - val -
  - fMet - ser - val - phe - asn - ala - ile - ala - leu - ser - asp - val - thr - leu -  ●  -   -   -   -   -   -   -   -   -   - fMet - phe -
  -     - ser - leu - thr - leu - leu - arg - cys - gln - met -  ●  -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
```

p35 2.8 bits

p10 3.3 bits

p35 1.9 bits

... ##> orf 8 codons

{---} p35-(23)-p10 4311269 Gap 1.4 bits
|---| p35-p10 4311269 total 4.7 bits

{----------------} ... p35-(21)-p10 4311321 Gap
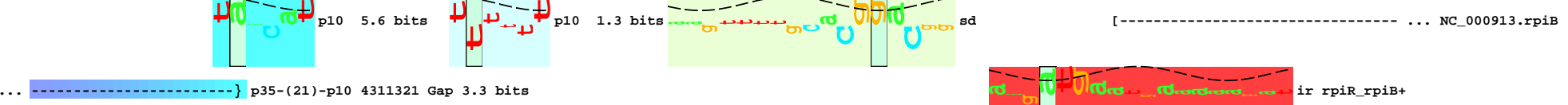|----------------| ... p35-p10 4311321 total 4.2

```
        *4311310  *       *4311320  *       *4311330  *       *4311340  *       *4311350  *       *4311360  *       *4311370  *       *4311380  *
5' ttttaattcattaacatcacaaatgtttttgattgtgaagttttgcacggacggggaagatgaatgaaaaagattgcatt 3'
  -   -   -   -   -   -   -   -   -   -   -   -   -   -   - fMet -   - glu - lys - asp - cys - ile -
  - phe - asn - ser - leu - thr - ser - gln - met - phe - phe - asp - cys - glu - val - leu - his - gly - arg - gly - arg -  ●  - fMet - lys - lys - ile - ala - phe -
  - leu - ile - his -   -   -   -   -   -   -   - fMet - ile - val - lys - phe - cys - thr - asp - gly - glu - asp - glu -   -   - fMet - his - leu -
```

p10 5.6 bits

p10 1.3 bits

sd

[-------------------------------- ... NC_000913.rpiB

ir rpiR_rpiB+

... {----------------------} p35-(21)-p10 4311321 Gap 3.3 bits

{-------------------} sd-(10)-ir 4311369 Gap 2.7 bits

... |----------------------| p35-p10 4311321 total 4.2 bits

|-------------------| sd-ir 4311369 rpiR_rpiB+ total 9.9 bits

p35 5.7 bits
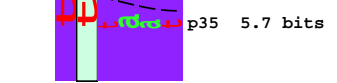
{---} p35-(24)-p10 4311335 Gap 2.4 bits

ir rpiR_rpiB+

|---| p35-p10 4311335 total 4.5 bits

sd

{----------------} sd-(8)-ir 4311373 Gap 2.4 bits
|----------------| sd-ir 4311373 rpiR_rpiB+ total 10.1 bits

```
   *4311390
5' t g g 3'
  - trp -
  -
```

... ------ ... NC_000913.rpiB