piece 1, NC_000913, yfhL_acpS+, config: linear, direction: +, begin: 2697916, end: 2698659

```
         *2697920  *       *2697930  *       *2697940  *       *2697950  *       *2697960  *       *2697970  *       *2697980  *       *2697990  *
5' gtgctgatgcaccacgcggataaaatttaatattctactctggaagtagagtattaattatattactggaagccttaacg 3'
 -fMet - leu - met - his - his - ala - asp - lys - ile -
          - cys -
           - ala - asp - ala - pro - arg - gly -
```

p35 1.6 bits
p10 6.3 bits
p10 4.1 bits
p35 2.6 bits
p10 1.2 bits
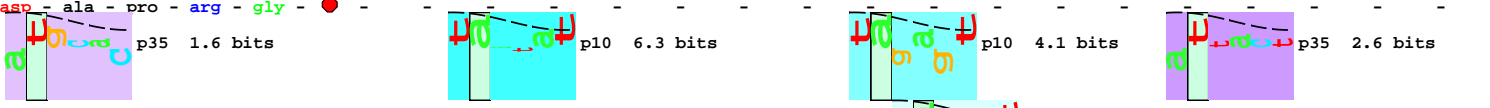
{-------------------------------} p35-(21)-p10 2697944 Gap 3.3 bits
{-------------------------------- ... p35-(24)-p10 2698002 Gap

|-------------------------------| p35-p10 2697944 total 4.6 bits
|-------------------------------- ... p35-p10 2698002 total 6.6

p10 6.0 bits

{-------------------------------} p35-(24)-p10 2697947 Gap 2.4 bits
|-------------------------------| p35-p10 2697947 total 5.1 bits

p35 5.7 bits

{-------------------------------} p35-(21)-p10 2697963 Gap 3.3 bits
|-------------------------------| p35-p10 2697963 total 6.4 bits
{-------------------------------} p35-(23)-p10 2697965 Gap 1.4 bits
|-------------------------------| p35-p10 2697965 total 5.4 bits

```
         *2698000  *       *2698010  *       *2698020  *       *2698030  *       *2698040  *       *2698050  *       *2698060  *       *2698070  *
5' ccattatatttatttaattgatgacattagcataatcattcactaagttaattatatagtatctgccagacacttatt 3'
                        -fMet - met - thr - leu - ala -
```

p10 6.5 bits
p10 5.5 bits
p10 3.8 bits
p35 1.5 bits
... p10
p10 2.6 bits
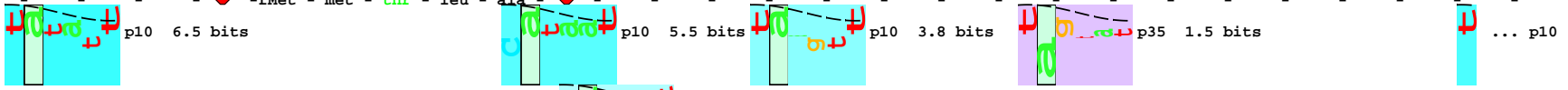
... --------} p35-(24)-p10 2698002 Gap 2.4 bits
{-------------------------------- ... p35-(23)-p10 2698078 Gap

... ----------| p35-p10 2698002 total 6.6 bits
{-------------------------------} p35-(23)-p10 2698041 Gap 1.4 bits

p35 4.8 bits
|-------------------------------| p35-p10 2698041 total 5.7 bits

{-------------------------------} p35-(22)-p10 2698028 Gap 2.3 bits
|-------------------------------- ... p35-p10 2698078 total 6.0
|-------------------------------| p35-p10 2698028 total 8.0 bits

p35 5.7 bits

{-------------------------------} p35-(21)-p10 2698031 Gap 3.3 bits
|-------------------------------| p35-p10 2698031 total 4.9 bits

p35 3.3 bits

```
         *2698080  *       *2698090  *       *2698100  *       *2698110  *       *2698120  *       *2698130  *       *2698140  *       *2698150  *
5' atagttattaaaggtgcgtccgactggttcaccggcgcaccttaagtacgtttccttgtgttataagaacagaaggatca 3'
                        -fMet - arg - pro - thr - gly - ser - pro - asp - ala - pro -
                                                                                      -fMet - leu -
                                                                          -fMet - cys - tyr - lys - asn - arg - arg - ile - ser -
```

p10 5.9 bits

... } p35-(23)-p10 2698078 Gap 1.4 bits

... | p35-p10 2698078 total 6.0 bits

*2698160 * *2698170 * *2698180 * *2698190 * *2698200 * *2698210 * *2698220 * *2698230 *
5' gctgtaaaacagcaatgatgattttgatgaccgtttaatcaggtatcggcaatcagtcattcgttttccttaaacaagg 3'

- cys - lys - thr - ala - met - met - ile - leu - met - thr - arg - leu - ile - arg - tyr - arg - gln - ser - val - ile - arg - phe - ser - leu - asn - lys - glu -

sd
ir yfhL_acpS+

{--------------------} sd-(10)-ir 2698185 Gap 2.7 bits
|--------------------| sd-ir 2698185 yfhL_acpS+ total 6.5 bits

*2698240 * *2698250 * *2698260 * *2698270 * *2698280 * *2698290 * *2698300 * *2698310 * *2698320
5' aatgcagccattcagattagcccttacatctccccaaaactgaacgtgcgagttattgagggtgcatgctgcactccacac 3'
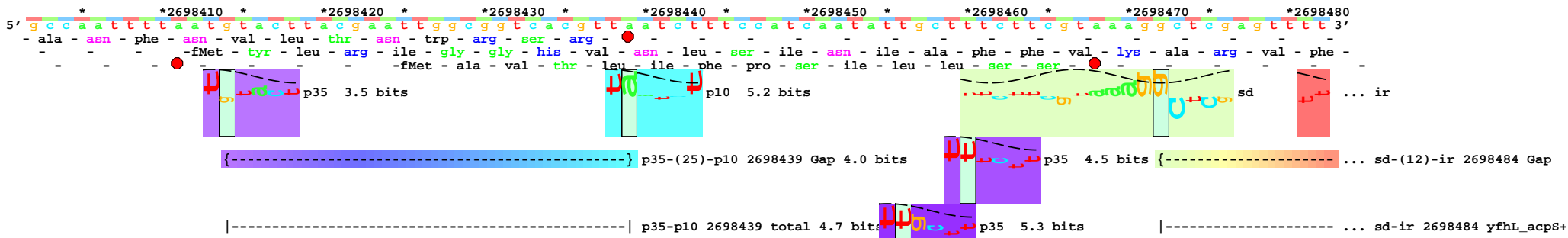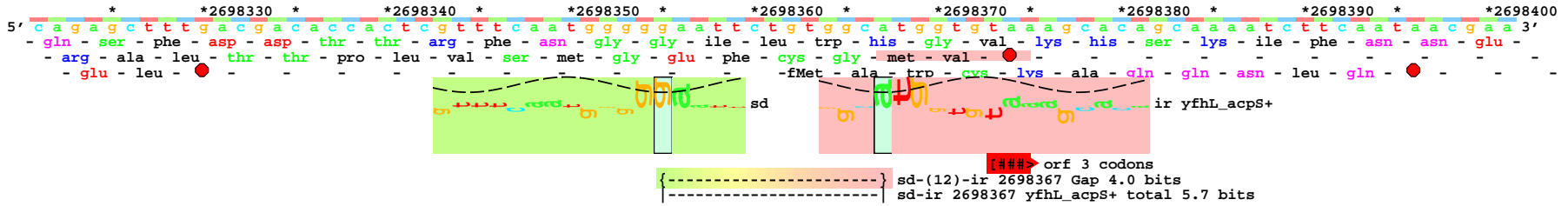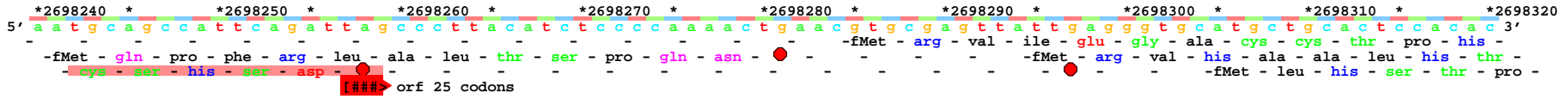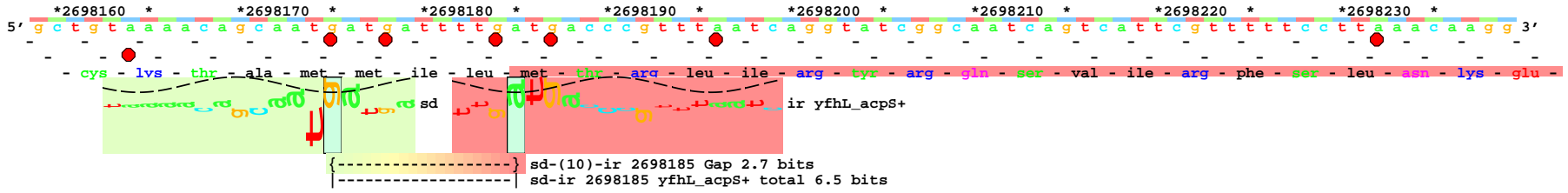
-fMet - arg - val - ile - glu - gly - ala - cys - cys - thr - pro - his -
-fMet - gln - pro - phe - arg - leu - ala - leu - thr - ser - pro - gln - asn - -fMet - arg - val - his - ala - leu - his - thr -
- cys - ser - his - ser - asp - -fMet - leu - his - ser - thr - pro -

[###> orf 25 codons

* *2698330 * *2698340 * *2698350 * *2698360 * *2698370 * *2698380 * *2698390 * *2698400
5' cagagctttgacgacaccactcgtttcaatggtgtaaagcacagcaaaatcttcaataacgaa 3'

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

sd
ir yfhL_acpS+

[###> orf 3 codons

{--------------------} sd-(12)-ir 2698367 Gap 4.0 bits
|--------------------| sd-ir 2698367 yfhL_acpS+ total 5.7 bits

* *2698410 * *2698420 * *2698430 * *2698440 * *2698450 * *2698460 * *2698470 * *2698480
5' gccaatttatgtacttacgaattggcgtgtcacgttaatctttccatcaatattgcttcttcgtaaaggctcgagtttt 3'

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

p35 3.5 bits
p10 5.2 bits
sd
... ir

{----------------------} p35-(25)-p10 2698439 Gap 4.0 bits
p35 4.5 bits {---------------- ... sd-(12)-ir 2698484 Gap

|---------------------------------| p35-p10 2698439 total 4.7 bits
p35 5.3 bits |---------------------- ... sd-ir 2698484 yfhL_acpS+

... p10

{---------------------------------} p35-(25)-p10 2698481 Gap 4.0 bit
|--------------------------------- p35-p10 2698481 total 4.5 bits
{-------------------------------- ... p35-(24)-p10 2698484 Gap
--------------------------------- ... p35-p10 2698484 total 7.4

* *2698490 * *2698500 * *2698510 * *2698520 * *2698530 * *2698540 * *2698550 * *2698560
5' tatgctaaagattgcaagttgcttgtaaaagataagtacactgatccataatcgctgttgttgagggtgcatgctgcacaa 3'

-fMet - leu - val - lys - asp - lys - tyr - thr - asp - pro - -fMet - leu - arg - val - his - ala - ala - gln -
met - leu - lys - ile - ala - ala - -fMet - leu - his - lys -
-fMet - gln - val - ala - cys - lys - arg -

ir yfhL_acpS+
[###> orf 9 codons
p10 5.8 bits
p35 3.8 bits
... p10

... --} sd-(12)-ir 2698484 Gap 4.0 bits
p35 5.5 bits
p10 5.5 bits
p35 3.7 bits

... --| sd-ir 2698484 yfhL_acpS+ total 6.8 bits   {-------------------------------------} p35-(24)-p10 2698530 Gap 2.4 bits

... ___ p10 3.2 bits   ___ p35 6.1 bits   {---} p35-(21)-p10 2698562 Gap 3.3 bit

p10 5.3 bits |---| p35-p10 2698530 total 8.6 bits

{---------------------------------} p35-(25)-p10 2698520 Gap 4.0 bits |--| p35-p10 2698562 total 5.2 bits

... --} p35-(24)-p10 2698484 Gap 2.4 bits   {-------------------------------- ... p35-(24)-p10 2698568 Gap

... --| p35-p10 2698484 total 7.4 bits |--------------------------------------| p35-p10 2698520 total 7.9 bits |---------------------------- ... p35-p10 2698568 total 6.4

```
        *      *2698570  *      *2698580  *      *2698590  *      *2698600  *      *2698610  *      *2698620  *      *2698630  *      *2698640
5' aattaaagttaaaaagtaaaaccccgttccttaccagttcggggtttttactttttaaagagaacggtattatttttaac 3'
   - asn -   - ile - lys - val - lys - lys -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
```

... p10 4.7 bits   p35 5.7 bits   <--------- ... NC_000913.acpS

p10 5.1 bits   p35 4.7 bits   p10 7.1 bits

{-----------------------------------} p35-(21)-p10 2698633 Gap 3.3 bits

|-----------------------------------| p35-p10 2698633 total 9.4 bits

p35 5.6 bits   p10 0.5 bits

... --------} p35-(24)-p10 2698568 Gap 2.4 bits   {-----------------------------} p35-(23)-p10 2698635 Gap 1.4 bits

... --------| p35-p10 2698568 total 6.4 bits |-----------------------------| p35-p10 2698635 total 4.7 bits

p10 5.2 bits

{------------------------------------} p35-(24)-p10 2698636 Gap 2.4 bits

|------------------------------------| p35-p10 2698636 total 8.4 bits

... p10

{-----------------------------------} p35-(23)-p10 2698641 Gap 1.4 bits

|-----------------------------------| p35-p10 2698641 total 5.8 bits

... p10

{-----------------------------------} p35-(23)-p10 2698642 Gap 1.4 bits

|-----------------------------------| p35-p10 2698642 total 7.8 bits

```
        *      *2698650  *
5' tttcaataattaccg 3'
   -   -   -   -   -   -
     -   -   -   -   -
... ----------------------- ... NC_000913.acpS
```

... p10 2.6 bits

... p10   3.7 bits