piece 1, NC_000913, lrhA_yfbQ+, config: linear, direction: +, begin: 2404634, end: 2405602

```
         *     *2404640  *      *2404650  *      *2404660  *      *2404670  *      *2404680  *      *2404690  *      *2404700  *      *2404710
5' g t t a a t t a t c g g a c g a t t t g c a c t t a t c a t a t a t t a t c a c t t a c t g g c g g c t c a t a c t g a g c t g g t t a a t g c t g t g c a c a c 3'
```
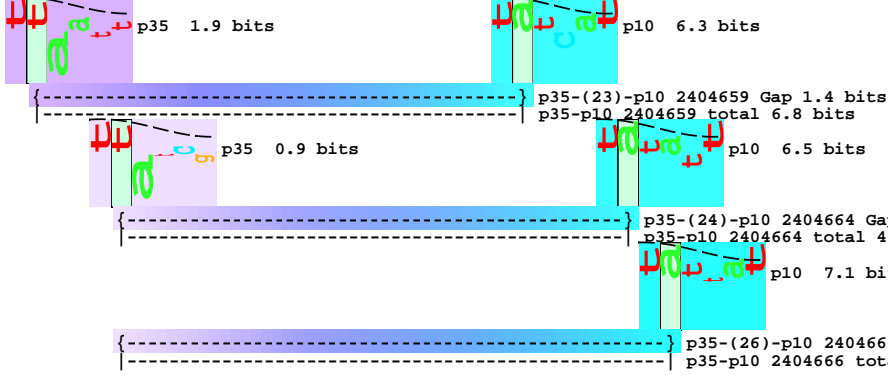
- val - asn - tyr - arg - thr - ile - cys - thr - tyr - his - ile - leu - ser - leu - thr - gly - gly - ser - tyr - - - - - - -
- - leu - ile - ile - gly - arg - phe - ala - leu - ile - ile - ile - tyr - tyr - his - leu - leu - ala - ala - his - thr - glu - leu - val - asn - ala - val - his - thr -
- - - - - - -fMet - his - leu - ser - tyr - ile - ile - thr - tyr - trp - arg - leu - ile - leu - ser - trp - leu - met - leu - cys - thr - his -

... ─────────────────────────l NC_000913.lrhA

p35 1.9 bits   p10 6.3 bits

{-------------------------------------} p35-(23)-p10 2404659 Gap 1.4 bits
|-------------------------------------| p35-p10 2404659 total 6.8 bits

p35 0.9 bits   p10 6.5 bits

{-------------------------------------} p35-(24)-p10 2404664 Gap 2.4 bits
|-------------------------------------| p35-p10 2404664 total 4.9 bits

p10 7.1 bits

{-------------------------------------} p35-(26)-p10 2404666 Gap 3.7 bits
|-------------------------------------| p35-p10 2404666 total 4.2 bits
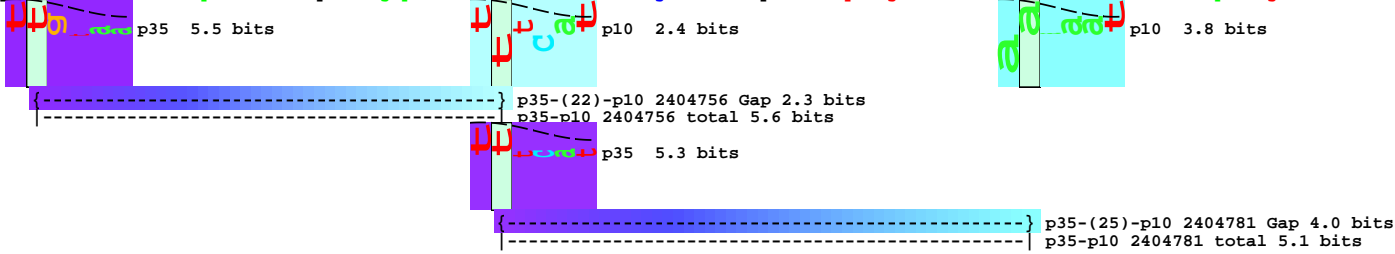
```
         *     *2404720  *      *2404730  *      *2404740  *      *2404750  *      *2404760  *      *2404770  *      *2404780  *      *2404790  *
5' a c a a a c a a g c a a t t c c a t t g t a a t g t g c c t c c c t g g c a g t t t c a t c c g g a a c c g g a c g a a a g t a a a a a t g c a t a t g a g t 3'
```

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

p35 5.5 bits   p10 2.4 bits   p10 3.8 bits

{-------------------------------------} p35-(22)-p10 2404756 Gap 2.3 bits
|-------------------------------------| p35-p10 2404756 total 5.6 bits

p35 5.3 bits

{-------------------------------------} p35-(25)-p10 2404781 Gap 4.0 bits
|-------------------------------------| p35-p10 2404781 total 5.1 bits

```
         *     *2404800  *      *2404810  *      *2404820  *      *2404830  *      *2404840  *      *2404850  *      *2404860  *      *2404870  *
5' t g c a c t a a a a a a g c g a c t c a c a t t g t t c c g t t a t a a t g c c t g a a g t a g a t c a c a g a a t a t a t c t t c a g g a t c g c a t a t c t 3'
```

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

p35 3.1 bits   p10 4.5 bits

{-------------------------------------} p35-(24)-p10 2404856 Gap 2.4 bits
|-------------------------------------| p35-p10 2404856 total 5.1 bits

```
         *     *2404880  *      *2404890  *      *2404900  *      *2404910  *      *2404920  *      *2404930  *      *2404940  *      *2404950  *
5' a t t a a g t t a c t c a c t c t t t c t a t t t a t g a c a t g c g c g t g t t t g t a t a a a t g t a a a t g t g a g t c c t t g t t c c a c t c t c g t g 3'
```

- - - - - - - -fMet - ser - pro - cys - ser - thr - leu - val -
- - - - - - - - - -fMet - arg - val - phe - val - -fMet - -fMet -
- - - - - - -fMet - thr - cys - ala - cys - leu - tyr - lys - cys - lys - cys - glu - ser - leu - phe - his - ser - arg - ala -

```
         *     *2404960  *      *2404970  *      *2404980  *      *2404990  *      *2405000  *      *2405010  *      *2405020  *      *2405030  *
5' c a g c a t c g c t g g t c a t a c g c g a a c a c g t a c c a a c a g c a a t g g t g a g g c g c a t c a a g a g c a g g g a t c c g t c a t t t a t c c g a 3'
```

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

```
         *     *2405040  *      *2405050  *      *2405060  *      *2405070  *      *2405080  *      *2405090  *      *2405100  *      *2405110  *
5' g c a t t t a c c c c a a a a a a c c t t t a t t t a t a a g g g t c a t t g c g a a t t a t c t g a a g c a a g t t a t g t t a t g t t a g g c a a a g t a 3'
```

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

p35 3.2 bits   sd   ir lrhA_yfbQ+

p35   4.8 bits   { } sd-(18)-ir 2405090 Gap 6.9 bits

|-------------------------------| sd-ir 2405090 lrhA_yfbO+ total 5.1 bits

p10   3.3 bits   p10   3.3 bits   p10   4.6 bits

p35   2.7 bits

{----------------------------------->} p35-(23)-p10 2405066 Gap 1.4 bits

{----------------------------------- ... p35-(25)-p10 2405127 Gap

|-------------------------------| p35-p10 2405066 total 5.1 bits   {---------------------------} p35-(23)-p10 2405082 Gap 1.4 bits |------------------------------| p35-p10 2405082 total 6.6 bits

|------------------------------- ... p35-p10 2405127 total 5.7

p35   4.2 bits

{----------------------------------} p35-(23)-p10 2405100 Gap 1.4 bits
|----------------------------------| p35-p10 2405100 total 7.4 bits

*2405120   *   *2405130   *   *2405140   *   *2405150   *   *2405160   *   *2405170   *   *2405180   *   *2405190   *   *2405200
5' a t c t t c t a t t a t t a a t a a g c a c a t c a a a a c c t t t t g a a t a t t a a a t a a t a a t t a a t t a g c a t c a t c c t c a t t c a t t a a t t 3'
- ile - phe - tyr - tyr -   -   -   -   -   -fMet - asn - ile - lys -   -   -   -   -   -   -   -
      - leu - leu - leu - leu - ile - ser - thr - ser - lys - pro - phe -   -   -   -   -   -   -   -   -   -

[###> orf 15 codons

p35   6.5 bits   p10   4.5 bits

p10   7.1 bits   {------------------------------} p35-(23)-p10 2405178 Gap 1.4 bits

|----------------------------------| p35-p10 2405178 total 9.6 bits

p10   3.5 bits

... p35-(25)-p10 2405127 Gap 4.0 bits   {------------------------------} p35-(26)-p10 2405181 Gap 3.7 bits
... p35-p10 2405127 total 5.7 bits |------------------------------| p35-p10 2405181 total 6.3 bits

*   *2405210   *   *2405220   *   *2405230   *   *2405240   *   *2405250   *   *2405260   *   *2405270   *   *2405280
5' c c g c t t a a c a a t a g t t t c a c a c c t t g c c c c c a t t g c g a c a c c t c g g a a a t c a t c a c g c a g t t a a a c t c t c c g t a a t g a g g a 3'
- -   -   -   -   -   -fMet - pro - pro - leu - arg - his - leu - gly - asn - his - his - ala - val - lys - leu - ser - val - met - arg - lys -

p35   4.6 bits   p10   2.6 bits   p35   1.2 bits

{------------------------------} p35-(24)-p10 2405249 Gap 2.4 bits   {------------------- ... p35-(23)-p10 2405285 Gap
|------------------------------| p35-p10 2405249 total 4.8 bits |------------------- ... p35-p10 2405285 total 6.1

*   *2405290   *   *2405300   *   *2405310   *   *2405320   *   *2405330   *   *2405340   *   *2405350   *   *2405360
5' a a t a t c a t c a t c g c g t t t c a t t a g t g a a t t c t t a a a t g a g g c a t t t c a c a c a a t t a t c t t a c a g a t a a a a a a a c c a g a c t 3'
- -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
- tyr - his - his - arg - val - ser - leu - val - asn - ser -   -fMet - arg - his - phe - his - thr - ile - ile - leu - gln - ile - lys - lys - pro - asp - leu -

sd   ir lrhA_yfbQ+   p35   1.4 bits

- 3 -

p10   6.3 bits

{--------------------} sd-(10)-ir 2405317 Gap 2.7 bits

|--------------------| sd-ir 2405317 lrhA_yfbQ+ total 6.2 bits

p10   4.5 bits

{--- ... p35-(22)-p10 2405364 Gap
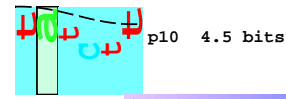
... -------} p35-(23)-p10 2405285 Gap 1.4 bits

p35   2.8 bits

|--- ... p35-p10 2405364 total 6.0

... ------| p35-p10 2405285 total 6.1 bits

{---} p35-(24)-p10 2405338 Gap 2.4 bits
|---| p35-p10 2405338 total 4.8 bits

```
         *       *2405370  *       *2405380  *       *2405390  *       *2405400  *       *2405410  *       *2405420  *       *2405430  *       *2405440
5' t a c a a t t a a g a a t c a g a a c a a t t c a c t a t a t a a c a t t g c a t g t a a a g c a t a t a c a c c t c a t t a t t t t g t c a t t a t t a a g t t 3'
    -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -fMet-   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
   -gln - leu - arg - ile - arg - thr - ile - his - tyr - ile - thr - leu - his - val - lys - his - ile - his - leu - ile - ile - leu - ser - leu - leu - ser - tyr -
```
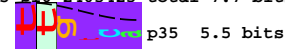
p10   6.9 bits

p35   6.2 bits

p10   4.2 bits
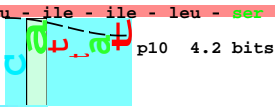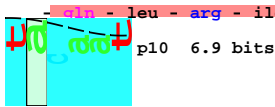
... --} p35-(22)-p10 2405364 Gap 2.3 bits

{--} p35-(23)-p10 2405422 Gap 1.4 bits
|--| p35-p10 2405422 total 8.9 bits

... --| p35-p10 2405364 total 6.0 bits

p10   5.2 bits

{--------------------------------------} p35-(26)-p10 2405425 Gap 3.7 bits
|--------------------------------------| p35-p10 2405425 total 7.7 bits

p35   5.5 bits

{--------------------------------- ... p35-(24)-p10 2405453 Gap
|--------------------------------- ... p35-p10 2405453 total 7.1

```
         *       *2405450  *       *2405460  *       *2405470  *       *2405480  *       *2405490  *       *2405500  *       *2405510  *       *2405520
5' a t t a a c a g c a c a a t c g a g c c t t c c c c t c t g g c a a a a t c t t a t t c t g c a g a c c t t c a a a a c a c c g t c c t g g g g g a g t a c a t t 3'
    -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -fMet-   -
```

[###> orf 44 codons

p35   1.1 bits

p10   5.1 bits

p10   4.1 bits
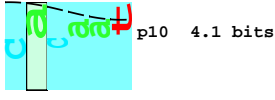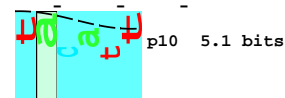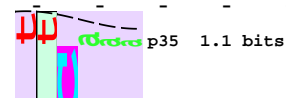
{--------------------------------------} p35-(23)-p10 2405520 Gap 1.4 bits

|--| p35-p10 2405520 total 4.7 bits

... ----------------------} p35-(24)-p10 2405453 Gap 2.4 bits
... ----------------------| p35-p10 2405453 total 7.1 bits

```
      *       *2405530  *       *2405540  *       *2405550  *       *2405560  *       *2405570  *       *2405580  *       *2405590  *       *2405600
5' g t t c t a a g c t g a c t t c c a c g g c a g g g a g t g g c g a t a a c a g c a a a a a a g g t c a a g a t t c a t g t c c c c c a t t g a a a a a t c 3'
    -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -   -
   - phe -   -   -   -   -   -   -   -   -fMet- ala - ile - thr - ala - lys - lys - val - lys - ile - his - val - pro - his -   -   -
                                                                                                    -fMet- ser - pro - ile - glu - lys -
                                                                                                           -fMet- lys - asn -
```

sd

[--------------------------------------- ... NC_000913.yfbQ
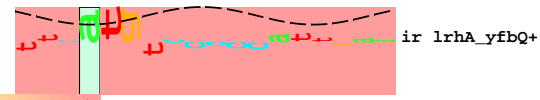
ir lrhA_yfbQ+

{--------------------} sd-(10)-ir 2405583 Gap 2.7 bits
|--------------------| sd-ir 2405583 lrhA_yfbQ+ total 8.6 bits