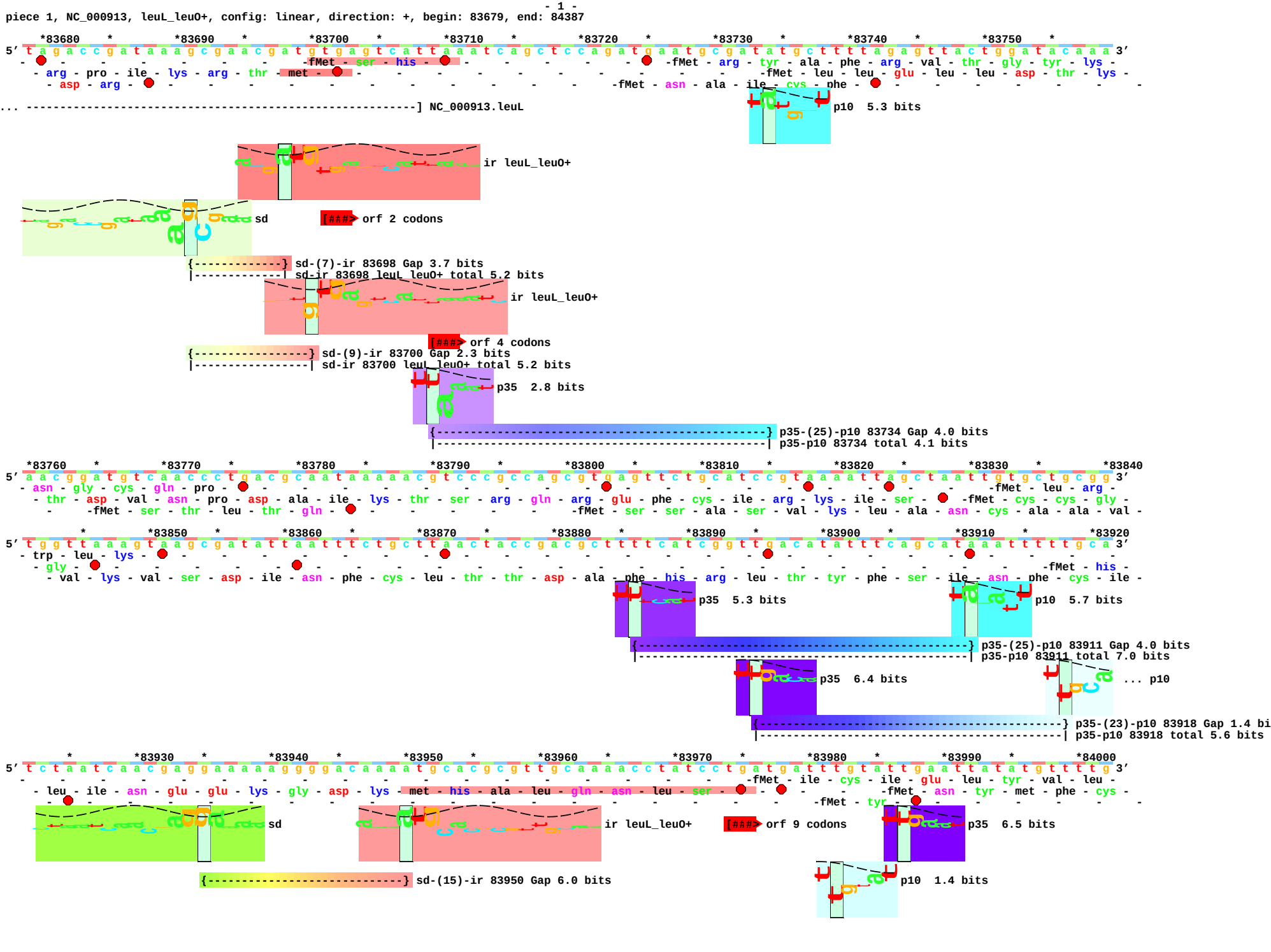
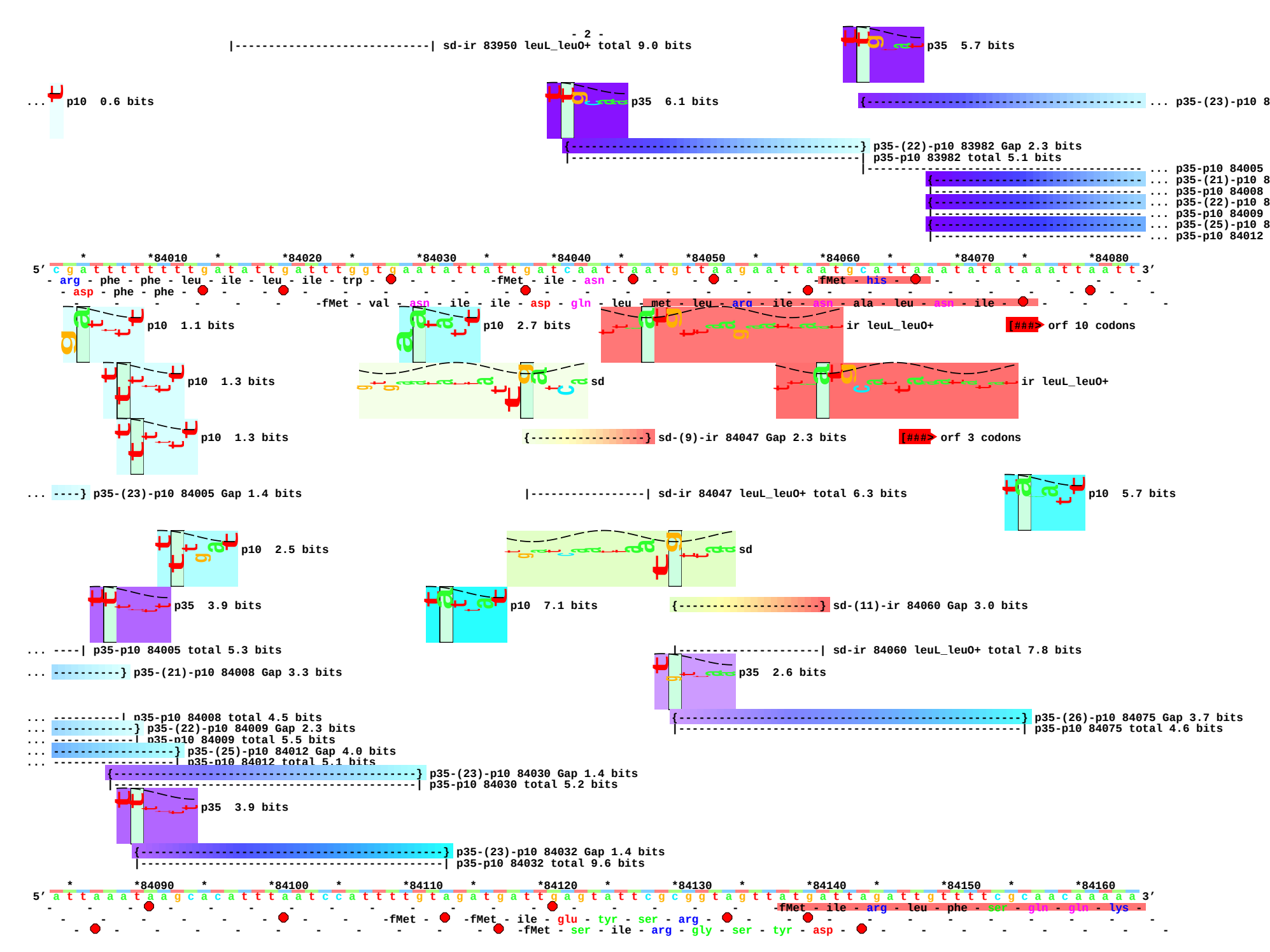
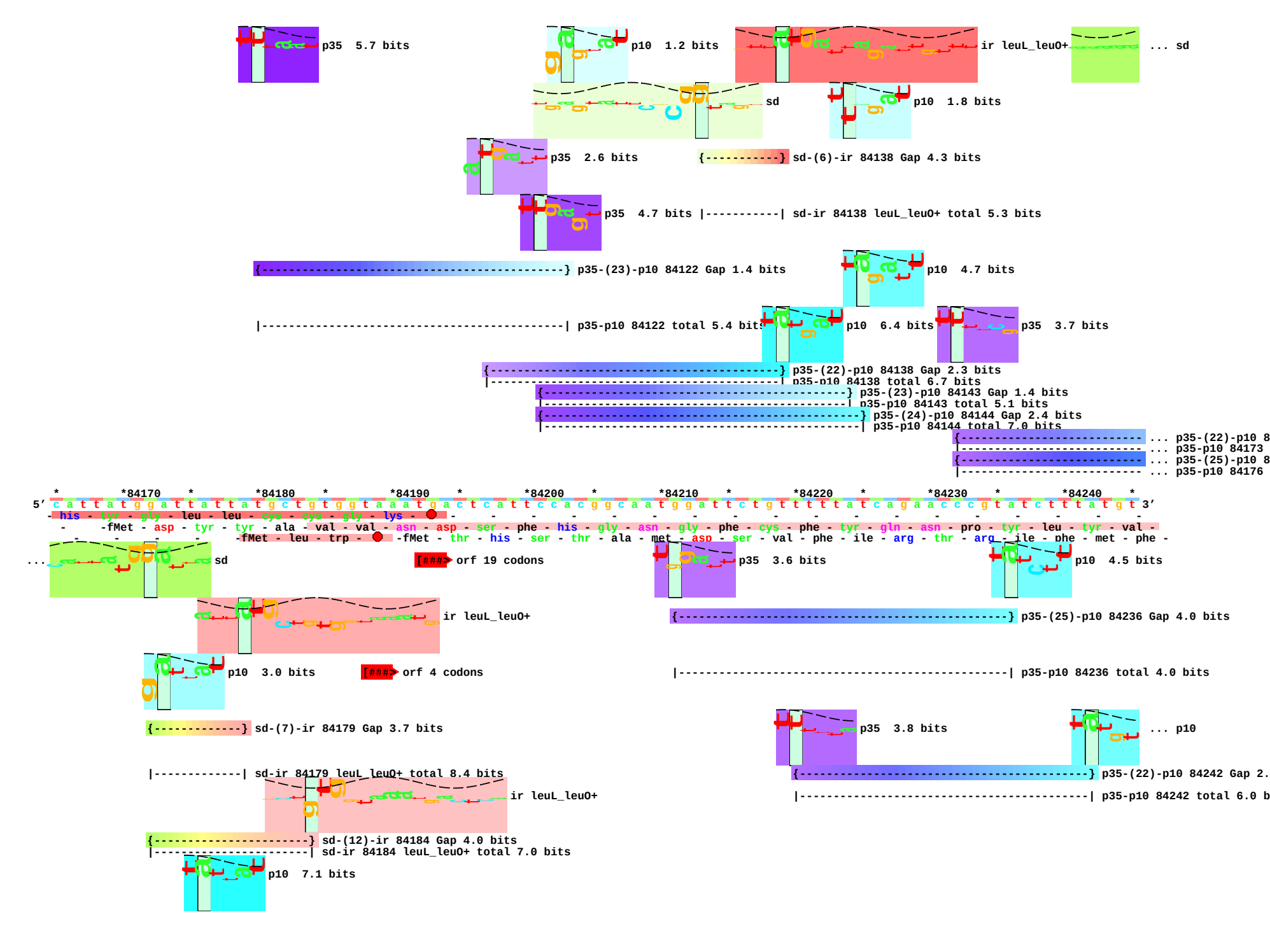
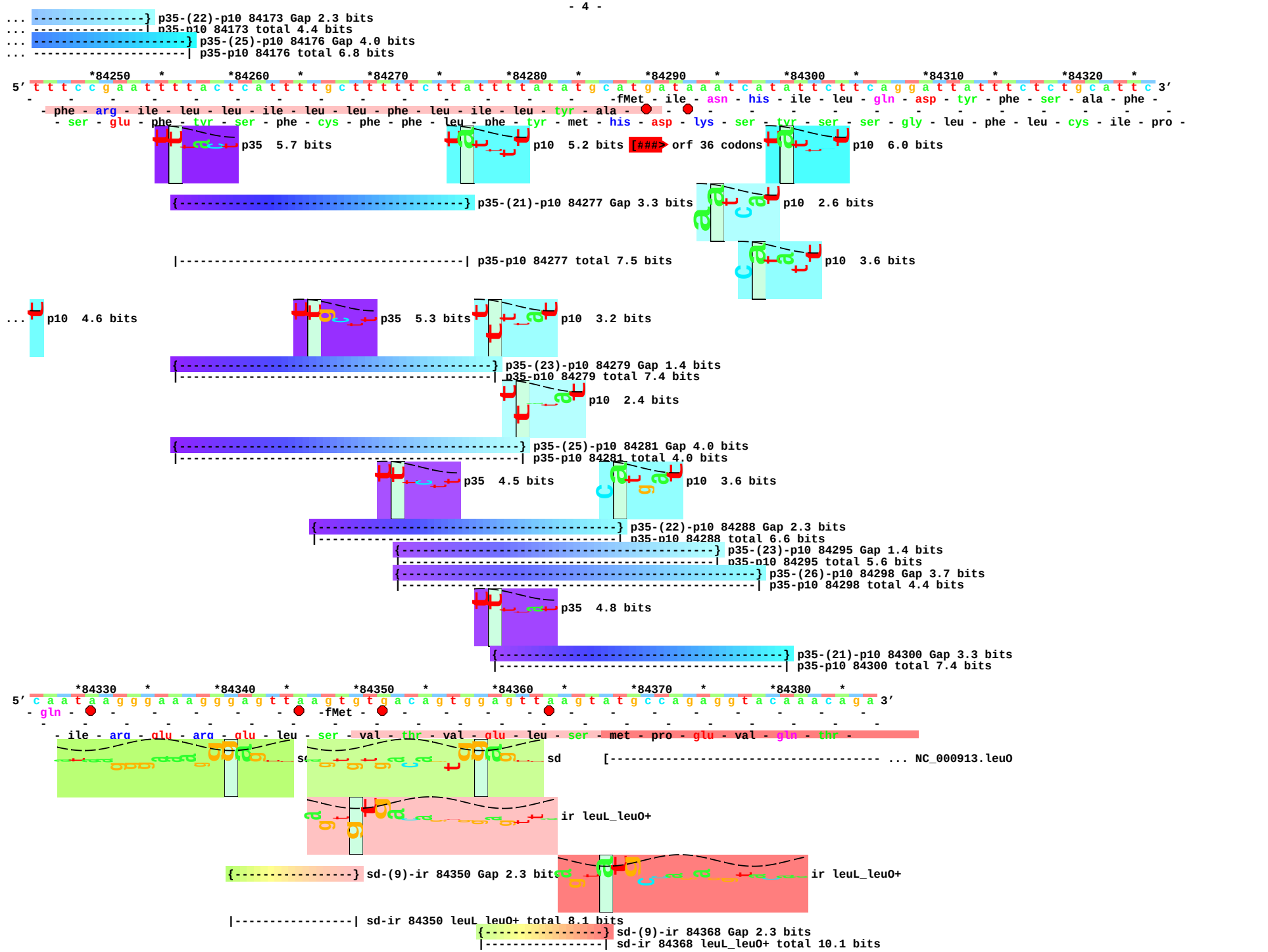

piece 1, NC_000913, leuL_leuO+, config: linear, direction: +, begin: 83679, end: 84387
*83680 *83690 *83700 *83710 *83720 *83730 *83740 *83750
5′ t a g a c c g a t a a a g c g a a c g a t g t g a g t c a t t a a a t c a g c t c c a g a t g a a t g c g a t a t g c t t t t a g a g t t a c t g g a t a c a a a 3′
- arg - pro - ile - lys - arg - thr - met - -fMet - ser - his - -fMet - arg - tyr - ala - phe - arg - val - thr - gly - tyr - lys -
- asp - arg - -fMet - asn - ala - ile - cys - phe - -fMet - leu - leu - glu - leu - leu - asp - thr - lys -
... ----------] NC_000913.leuL
p10 5.3 bits
ir leuL_leuO+
sd
[###> orf 2 codons
{----------} sd-(7)-ir 83698 Gap 3.7 bits
|----------| sd-ir 83698 leuL_leuO+ total 5.2 bits
ir leuL_leuO+
[###> orf 4 codons
{----------} sd-(9)-ir 83700 Gap 2.3 bits
|----------| sd-ir 83700 leuL_leuO+ total 5.2 bits
p35 2.8 bits
{----------} p35-(25)-p10 83734 Gap 4.0 bits
|----------| p35-p10 83734 total 4.1 bits
*83760 *83770 *83780 *83790 *83800 *83810 *83820 *83830 *83840
5′ a a c g g a t g t c a a c c c t g a c g c a a t a a a a a c g t c c c g c c a g c g t g a g t t c t g c a t c c g t a a a a t t a g c t a a t t g t g c t g c g g 3′
- asn - gly - cys - gln - pro - -fMet - leu - arg -
- thr - asp - val - asn - pro - asp - ala - ile - lys - thr - ser - arg - gln - arg - glu - phe - cys - ile - arg - lys - ile - ser - -fMet - cys - cys - gly -
- -fMet - ser - thr - leu - thr - gln - -fMet - ser - ser - ala - ser - val - lys - leu - ala - asn - cys - ala - ala - val -
*83850 *83860 *83870 *83880 *83890 *83900 *83910 *83920
5′ t g g t t a a a g t a a g c g a t a t t a a t t t c t g c t t a a c t a c c g a c g c t t t t c a t c g g t t g a c a t a t t t c a g c a t a a a t t t t t g c a 3′
- trp - leu - lys - -fMet - his -
- gly -
- val - lys - val - ser - asp - ile - asn - phe - cys - leu - thr - thr - asp - ala - phe - his - arg - leu - thr - tyr - phe - ser - ile - asn - phe - cys - ile -
p35 5.3 bits
p10 5.7 bits
{----------} p35-(25)-p10 83911 Gap 4.0 bits
|----------| p35-p10 83911 total 7.0 bits
p35 6.4 bits
... p10
{----------} p35-(23)-p10 83918 Gap 1.4 bi
|----------| p35-p10 83918 total 5.6 bits
*83930 *83940 *83950 *83960 *83970 *83980 *83990 *84000
5′ t c t a a t c a a c g a g g a a a a a g g g a c a a a a t g c a c g c g t t g c a a a a c c t a t c c t g a t g a t t t g t a t t g a a t t a t a t g t t t t g 3′
- -fMet - ile - cys - ile - glu - leu - tyr - val - leu -
- leu - ile - asn - glu - glu - lys - gly - asp - lys - met - his - ala - leu - gln - asn - leu - ser - -fMet - asn - tyr - met - phe - cys -
-fMet - tyr -
sd
ir leuL_leuO+
[###> orf 9 codons
p35 6.5 bits
{----------} sd-(15)-ir 83950 Gap 6.0 bits
p10 1.4 bits


- 2 -
|----------| sd-ir 83950 leuL_leuO+ total 9.0 bits
p35 5.7 bits
... p10 0.6 bits
p35 6.1 bits
{---------- ... p35-(23)-p10 8
{----------} p35-(22)-p10 83982 Gap 2.3 bits
|----------| p35-p10 83982 total 5.1 bits
|---------- ... p35-p10 84005
{---------- ... p35-(21)-p10 8
|---------- ... p35-p10 84008
{---------- ... p35-(22)-p10 8
|---------- ... p35-p10 84009
{---------- ... p35-(25)-p10 8
|---------- ... p35-p10 84012
* *84010 * *84020 * *84030 * *84040 * *84050 * *84060 * *84070 * *84080
5′ c g a t t t t t t t t g a t a t t g a t t t g g t g a a t a t t a t t g a t c a a t t a a t g t t a a g a a t t a a t g c a t t a a a t a t a a t t a a t t a a t t 3′
- arg - phe - phe - leu - ile - leu - ile - trp - - - -fMet - ile - asn - - - - - -fMet - his - - - - - - - - - -
- asp - phe - phe -
-fMet - val - asn - ile - ile - asp - gln - leu - met - leu - arg - ile - asn - ala - leu - asn - ile - - - - - - -
p10 1.1 bits
p10 2.7 bits
ir leuL_leuO+
[###> orf 10 codons
p10 1.3 bits
sd
ir leuL_leuO+
p10 1.3 bits
{----------} sd-(9)-ir 84047 Gap 2.3 bits
[###> orf 3 codons
... ----} p35-(23)-p10 84005 Gap 1.4 bits
|----------| sd-ir 84047 leuL_leuO+ total 6.3 bits
p10 5.7 bits
p10 2.5 bits
sd
p35 3.9 bits
p10 7.1 bits
{----------} sd-(11)-ir 84060 Gap 3.0 bits
... ----| p35-p10 84005 total 5.3 bits
|----------| sd-ir 84060 leuL_leuO+ total 7.8 bits
... ----------} p35-(21)-p10 84008 Gap 3.3 bits
p35 2.6 bits
... ----------| p35-p10 84008 total 4.5 bits
{----------} p35-(26)-p10 84075 Gap 3.7 bits
... ----------} p35-(22)-p10 84009 Gap 2.3 bits
|----------| p35-p10 84075 total 4.6 bits
... ----------| p35-p10 84009 total 5.5 bits
... ----------} p35-(25)-p10 84012 Gap 4.0 bits
... ----------| p35-p10 84012 total 5.1 bits
{----------} p35-(23)-p10 84030 Gap 1.4 bits
|----------| p35-p10 84030 total 5.2 bits
p35 3.9 bits
{----------} p35-(23)-p10 84032 Gap 1.4 bits
|----------| p35-p10 84032 total 9.6 bits
* *84090 * *84100 * *84110 * *84120 * *84130 * *84140 * *84150 * *84160
5′ a t t a a a t a a g c a c a t t t a a t c c a t t t t g t a g a t g a t t g a g t a t t c g c g g t a g t t a t g a t t a g a t t g t t t t c g c a a c a a a a a a 3′
-fMet - ile - arg - leu - phe - ser - gln - gln - lys -
-fMet - -fMet - ile - glu - tyr - ser - arg -
-fMet - ser - ile - arg - gly - ser - tyr - asp -


p35 5.7 bits
p10 1.2 bits
ir leuL_leuO+
... sd
sd
p10 1.8 bits
p35 2.6 bits
{----------} sd-(6)-ir 84138 Gap 4.3 bits
p35 4.7 bits |----------| sd-ir 84138 leuL_leuO+ total 5.3 bits
{----------} p35-(23)-p10 84122 Gap 1.4 bits
p10 4.7 bits
|----------| p35-p10 84122 total 5.4 bits
p10 6.4 bits
p35 3.7 bits
{----------} p35-(22)-p10 84138 Gap 2.3 bits
|----------| p35-p10 84138 total 6.7 bits
{----------} p35-(23)-p10 84143 Gap 1.4 bits
|----------| p35-p10 84143 total 5.1 bits
{----------} p35-(24)-p10 84144 Gap 2.4 bits
|----------| p35-p10 84144 total 7.0 bits
{---------- ... p35-(22)-p10 8
|---------- ... p35-p10 84173
{---------- ... p35-(25)-p10 8
|---------- ... p35-p10 84176
* *84170 * *84180 * *84190 * *84200 * *84210 * *84220 * *84230 * *84240 *
5′ c a t t a t g g a t t a t t a t g c t g t g g t a a a t g a c t c a t t c c a c g g c a a t g g a t t c t g t t t t a t c a g a a c c c g t a t c t t t a t g t 3′
his - tyr - gly - leu - leu - cys - cys - gly - lys -
fMet - asp - tyr - tyr - ala - val - val - asn - asp - ser - phe - his - gly - asn - gly - phe - cys - phe - tyr - gln - asn - pro - tyr - leu - tyr - val -
fMet - leu - trp - fMet - thr - his - ser - thr - ala - met - asp - ser - val - phe - ile - arg - thr - arg - ile - phe - met - phe -
... sd
[###> orf 19 codons
p35 3.6 bits
p10 4.5 bits
ir leuL_leuO+
{----------} p35-(25)-p10 84236 Gap 4.0 bits
p10 3.0 bits
[###> orf 4 codons
|----------| p35-p10 84236 total 4.0 bits
{----------} sd-(7)-ir 84179 Gap 3.7 bits
p35 3.8 bits
... p10
|----------| sd-ir 84179 leuL_leuO+ total 8.4 bits
ir leuL_leuO+
{----------} p35-(22)-p10 84242 Gap 2.
|----------| p35-p10 84242 total 6.0 b
{----------} sd-(12)-ir 84184 Gap 4.0 bits
|----------| sd-ir 84184 leuL_leuO+ total 7.0 bits
p10 7.1 bits


p35-(22)-p10 84173 Gap 2.3 bits
p35-p10 84173 total 4.4 bits
p35-(25)-p10 84176 Gap 4.0 bits
p35-p10 84176 total 6.8 bits
*84250 *84260 *84270 *84280 *84290 *84300 *84310 *84320
5′ t t t c c g a a t t t t a c t c a t t t t g c t t t t t c t t a t t t t a t a t g c a t g a t a a a t c a t a t t c t t c a g g a t t a t t t c t c t g c a t t c 3′
-fMet - ile - asn - his - ile - leu - gln - asp - tyr - phe - ser - ala - phe -
- phe - arg - ile - leu - leu - ile - leu - leu - phe - leu - ile - leu - tyr - ala -
- ser - glu - phe - tyr - ser - phe - cys - phe - phe - leu - phe - tyr - met - his - asp - lys - ser - tyr - ser - ser - gly - leu - phe - leu - cys - ile - pro -
p35 5.7 bits
p10 5.2 bits
[###> orf 36 codons
p10 6.0 bits
p35-(21)-p10 84277 Gap 3.3 bits
p10 2.6 bits
p35-p10 84277 total 7.5 bits
p10 3.6 bits
p10 4.6 bits
p35 5.3 bits
p10 3.2 bits
p35-(23)-p10 84279 Gap 1.4 bits
p35-p10 84279 total 7.4 bits
p10 2.4 bits
p35-(25)-p10 84281 Gap 4.0 bits
p35-p10 84281 total 4.0 bits
p35 4.5 bits
p10 3.6 bits
p35-(22)-p10 84288 Gap 2.3 bits
p35-p10 84288 total 6.6 bits
p35-(23)-p10 84295 Gap 1.4 bits
p35-p10 84295 total 5.6 bits
p35-(26)-p10 84298 Gap 3.7 bits
p35-p10 84298 total 4.4 bits
p35 4.8 bits
p35-(21)-p10 84300 Gap 3.3 bits
p35-p10 84300 total 7.4 bits
*84330 *84340 *84350 *84360 *84370 *84380
5′ c a a t a a g g g a a a g g g a g t t a a g t g t g a c a g t g g a g t t a a g t a t g c c a g a g g t a c a a a c a g a 3′
- gln - -fMet -
- ile - arg - glu - arg - glu - leu - ser - val - thr - val - glu - leu - ser - met - pro - glu - val - gln - thr -
sd
sd
[------------------------------------ ... NC_000913.leuO
ir leuL_leuO+
sd-(9)-ir 84350 Gap 2.3 bits
ir leuL_leuO+
sd-ir 84350 leuL_leuO+ total 8.1 bits
sd-(9)-ir 84368 Gap 2.3 bits
sd-ir 84368 leuL_leuO+ total 10.1 bits