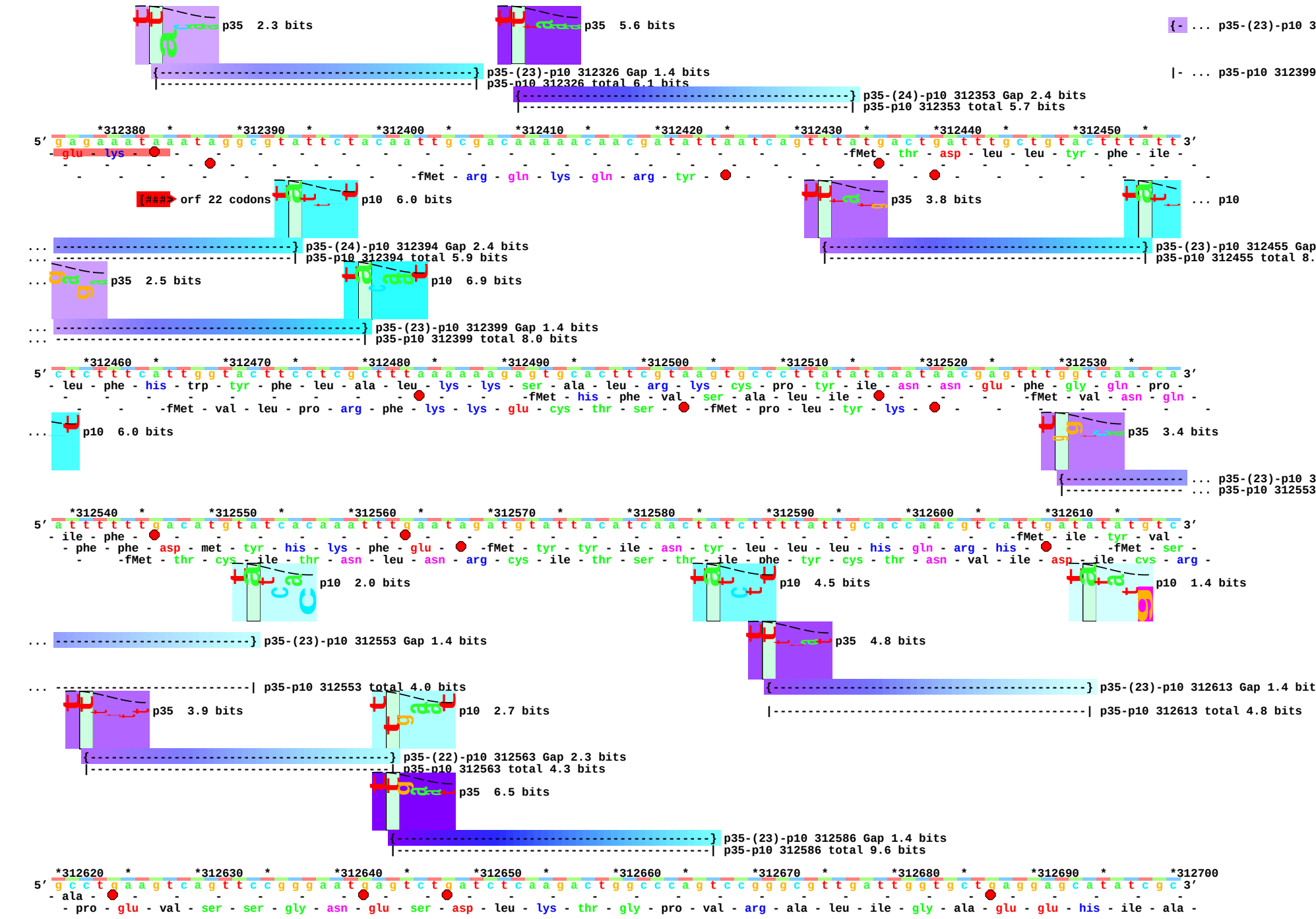
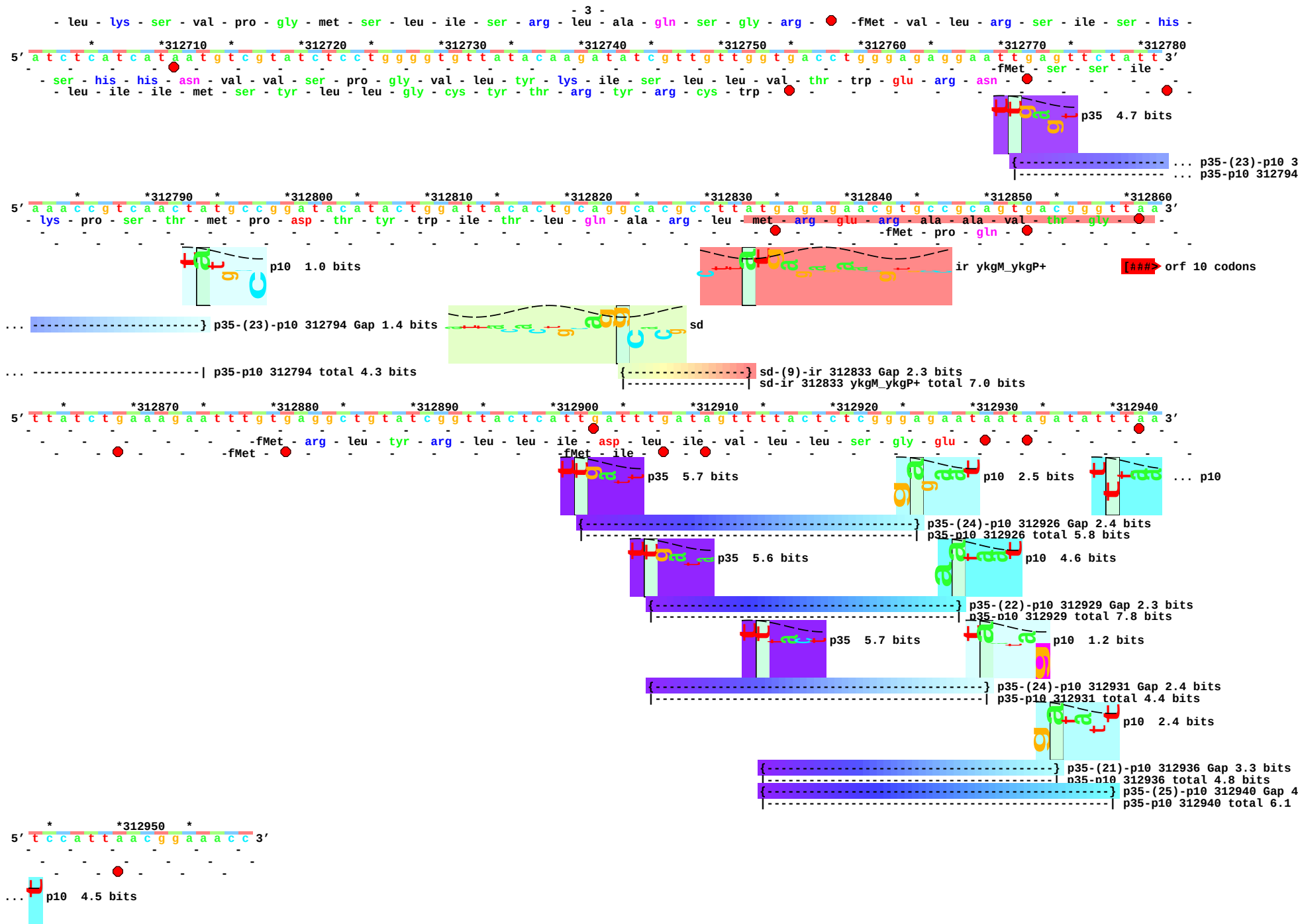
piece 1, NC_000913, ykgM_ykgP+, config: linear, direction: +, begin: 311972, end: 312959
*311980 *311990 *312000 *312010 *312020 *312030 *312040 *312050
5′ a c g a t a c t c a g g a t g g a t a t t g g g c t t c a t c a t t t t t a c c t g t t a t g t t a t a a c a t a a c c a t a a g a t a c a t g c t c a t c c g 3′
- thr - ile - leu - arg - met - asp - ile - gly - leu - his - his - phe - tyr - leu - leu - cys - tyr - asn - ile - thr - ile - lys - ile - his - ala - his - pro -
- arg - tyr - ser - gly - trp - ile - leu - gly - phe - ile - ile - phe - thr - cys - tyr - val - ile - thr - -fMet - leu - ile - arg -
- asp - thr - gln - asp - gly - tyr - trp - ala - ser - ser - phe - leu - pro - val - met - leu -
] NC_000913.ykgM
*312060 *312070 *312080 *312090 *312100 *312110 *312120 *312130
5′ g a t c a t t t c a a a c a c t c a a t c c c t g t g a c t c t t t g t g g a t g t g g a a t t t t c g c a a c g g g g a a c t c t g g c a t t g t t a g c a g c c 3′
- asp - his - phe - asn - thr - gln - ser - leu - -fMet - asp - val - glu - phe - ser - gln - arg - gly - thr - leu - ala - leu - leu - ala - ala -
- ile - ile - ser - thr - leu - asn - pro - cys - asp - ser - leu - trp - met - trp - asn - phe - arg - asn - gly - glu - leu - trp - his - cys -
-fMet - thr - leu - cys - gly - cys - gly - ile - phe - ala - thr - gly - asn - ser - gly - ile - val - ser - ser - his -
*312140 *312150 *312160 *312170 *312180 *312190 *312200 *312210
5′ a t t g g t g a c g c t c c c a t a a a c g c c t g g a t g a g t g a t g a t g a t g g t t t t g c t g a g a g t a t t g g a t t t t t c g a g a a t g g a g g t 3′
- ile - gly - asp - ala - pro - ile - asn - ala - trp - met - ser - asp -
-fMet - val - thr - leu - pro - -fMet - ile - asp - asp - gly - phe - ala - glu - ser - met - asp - phe - ser - arg - met - glu - val -
- trp - -fMet - met - met - val - leu - leu - arg - val - trp - ile - phe - arg - glu - trp - arg - leu -
sd
... ir
p35 4.3 bits
{----------} sd-(12)-ir 312207 Gap 4.0 bits
|----------| sd-ir 312207 ykgM_ykgP+ total 5.5 bit
p10 2.5 bits
{----------} p35-(22)-p10 312204 Gap 2.3 bits
|----------| p35-p10 312204 total 4.5 bits
*312220 *312230 *312240 *312250 *312260 *312270 *312280 *312290
5′ t a t c t c c a c t t t a c t g g c c g a t a t t t a t c g c a g t a t g a t t g a t t a c c t g a c a g c g t g t a t t c c t c t c c c a c g g a t a t a a t 3′
-fMet - ile - thr -
- ile - ser - thr - leu - leu - ala - asp - asn - leu - ser - gln - tyr - asp -
-fMet - tyr - ser - ser - pro - thr - asp - ile - ile -
- ser - pro - leu - tyr - trp - pro - ile - ile - tyr - arg - ser - met - ile - asp - tyr - leu - thr - ala - cys - ile - pro - leu - pro - arg - ile -
... ir ykgM_ykgP+
[###> orf 17 codons
p35 2.7 bits
... p10
p35 5.7 bits
p10 2.4 bits
{----------} p35-(22)-p10 312247 Gap 2.3 bits
|----------| p35-p10 312247 total 5.7 bits
p10 6.4 bits
{----------} p35-(25)-p10 312250 Gap 4.0 bits
|----------| p35-p10 312250 total 8.1 bits
{----------} p35-(22)-p10 312294 Gap 2
|----------| p35-p10 312294 total 5.0
*312300 *312310 *312320 *312330 *312340 *312350 *312360 *312370
5′ a a t t a c t t a c a a a a a a g g g a g a g g a t g c a t a t t t t a a a t a t c a c t g a a g t g a a c a g t t a t t t c c g t t a t t a a t a g a a a t g 3′
-fMet - his - ile - leu - asn - ile - thr - glu - val - asn - ser - leu - phe - pro - leu - leu - ile - glu - met -
- ile - thr - tyr - lys - lys - gly - arg - gly - cys - ile - phe -
... p10 4.6 bits
ir ykgM_ykgP+
p10 2.6 bits
p35 2.3 bits
sd
p10 5.2 bits
{----------} sd-(6)-ir 312320 Gap 4.3 bits
|----------| sd-ir 312320 ykgM_ykgP+ total 13.4 bits
... p35-(24)-p10 31239
... p35-p10 312394 tot
... p35


p35 2.3 bits
p35 5.6 bits
{- ... p35-(23)-p10 3
{----------} p35-(23)-p10 312326 Gap 1.4 bits
|- ... p35-p10 312399
|----------| p35-p10 312326 total 6.1 bits
{----------} p35-(24)-p10 312353 Gap 2.4 bits
|----------| p35-p10 312353 total 5.7 bits
*312380 *312390 *312400 *312410 *312420 *312430 *312440 *312450
5' g a g a a a t a a a t a g g c g t a t t c t a c a a t t g c g a c a a a a a c a a c g a t a t t a a t c a g t t t a t g a c t g a t t t g c t g t a c t t t a t t 3'
- glu - lys -
-fMet - thr - asp - leu - leu - tyr - phe - ile -
-fMet - arg - gln - lys - gln - arg - tyr -
[###> orf 22 codons
p10 6.0 bits
p35 3.8 bits
... p10
... {----------} p35-(24)-p10 312394 Gap 2.4 bits
... |----------| p35-p10 312394 total 5.9 bits
{----------} p35-(23)-p10 312455 Gap
|----------| p35-p10 312455 total 8.
... p35 2.5 bits
p10 6.9 bits
... {----------} p35-(23)-p10 312399 Gap 1.4 bits
... |----------| p35-p10 312399 total 8.0 bits
*312460 *312470 *312480 *312490 *312500 *312510 *312520 *312530
5' c t c t t t c a t t g g t a c t t c c t c g c t t t a a a a a a g a g t g c a c t t c g t a a g t g c c c t t a t a t a a a t a a c g a g t t t g g t c a a c c a 3'
- leu - phe - his - trp - tyr - phe - leu - ala - leu - lys - lys - ser - ala - leu - arg - lys - cys - pro - tyr - ile - asn - asn - glu - phe - gly - gln - pro -
-fMet - val - leu - pro - arg - phe - lys - lys - glu - cys - thr - ser -
-fMet - his - phe - val - ser - ala - leu - ile -
-fMet - pro - leu - tyr - lys -
-fMet - val - asn - gln -
... p10 6.0 bits
p35 3.4 bits
{---------- ... p35-(23)-p10 3
|---------- ... p35-p10 312553
*312540 *312550 *312560 *312570 *312580 *312590 *312600 *312610
5' a t t t t t t g a c a t g t a t c a c a a a t t t g a a t a g a t g t a t t a c a t c a a c t a t c t t t t a t t g c a c c a a c g t c a t t g a t a t a t g t c 3'
- ile - phe -
- phe - phe - asp - met - tyr - his - lys - phe - glu -
-fMet - tyr - tyr - ile - asn - tyr - leu - leu - leu - his - gln - arg - his -
-fMet - ile - tyr - val -
-fMet - ser -
-fMet - thr - cys - ile - thr - asn - leu - asn - arg - cys - ile - thr - ser - thr - ile - phe - tyr - cys - thr - asn - val - ile - asp - ile - cys - arg -
p10 2.0 bits
p10 4.5 bits
p10 1.4 bits
... {----------} p35-(23)-p10 312553 Gap 1.4 bits
p35 4.8 bits
... |----------| p35-p10 312553 total 4.0 bits
{----------} p35-(23)-p10 312613 Gap 1.4 bit
|----------| p35-p10 312613 total 4.8 bits
p35 3.9 bits
p10 2.7 bits
{----------} p35-(22)-p10 312563 Gap 2.3 bits
|----------| p35-p10 312563 total 4.3 bits
p35 6.5 bits
{----------} p35-(23)-p10 312586 Gap 1.4 bits
|----------| p35-p10 312586 total 9.6 bits
*312620 *312630 *312640 *312650 *312660 *312670 *312680 *312690 *312700
5' g c c t g a a g t c a g t t c c g g g a a t g a g t c t g a t c t c a a g a c t g g c c c a g t c c g g g c g t t g a t t g g t g c t g a g g a g c a t a t c g c 3'
- ala -
- pro - glu - val - ser - ser - gly - asn - glu - ser - asp - leu - lys - thr - gly - pro - val - arg - ala - leu - ile - gly - ala - glu - glu - his - ile - ala -


- 3 -
- leu - lys - ser - val - pro - gly - met - ser - leu - ile - ser - arg - leu - ala - gln - ser - gly - arg - -fMet - val - leu - arg - ser - ile - ser - his -
*312710 *312720 *312730 *312740 *312750 *312760 *312770 *312780
5′ a t c t c a t c a t a a t g t c g t a t c t c c t g g g g t g t t a t a c a a g a t a t c g t t g t t g g t g a c c t g g g a g a g g a a t t g a g t t c t a t t 3′
- ser - his - his - asn - val - val - ser - pro - gly - val - leu - tyr - lys - ile - ser - leu - leu - val - thr - trp - glu - arg - asn -
- leu - ile - ile - met - ser - tyr - leu - leu - gly - cys - tyr - thr - arg - tyr - arg - cys - trp -
-fMet - ser - ser - ile -
p35 4.7 bits
... p35-(23)-p10 3
... p35-p10 312794
*312790 *312800 *312810 *312820 *312830 *312840 *312850 *312860
5′ a a a c c g t c a a c t a t g c c g g a t a c a t a c t g g a t t a c a c t g c a g g c a c g c c t t a t g a g a g a a c g t g c c g c a g t g a c g g g t t a a 3′
- lys - pro - ser - thr - met - pro - asp - thr - tyr - trp - ile - thr - leu - gln - ala - arg - leu - met - arg - glu - arg - ala - ala - val - thr - gly -
-fMet - pro - gln -
p10 1.0 bits
ir ykgM_ykgP+
orf 10 codons
... p35-(23)-p10 312794 Gap 1.4 bits
sd
... p35-p10 312794 total 4.3 bits
sd-(9)-ir 312833 Gap 2.3 bits
sd-ir 312833 ykgM_ykgP+ total 7.0 bits
*312870 *312880 *312890 *312900 *312910 *312920 *312930 *312940
5′ t t a t c t g a a a g a a t t t g t g a g g c t g t a t c g g t t a c t c a t t g a t t t g a t a g t t t t a c t c t c g g g a g a a t a a t a g a t a t t t a a 3′
-fMet - arg - leu - tyr - arg - leu - leu - ile - asp - leu - ile - val - leu - leu - ser - gly - glu -
-fMet -fMet - ile -
p35 5.7 bits
p10 2.5 bits
... p10
p35-(24)-p10 312926 Gap 2.4 bits
p35-p10 312926 total 5.8 bits
p35 5.6 bits
p10 4.6 bits
p35-(22)-p10 312929 Gap 2.3 bits
p35-p10 312929 total 7.8 bits
p35 5.7 bits
p10 1.2 bits
p35-(24)-p10 312931 Gap 2.4 bits
p35-p10 312931 total 4.4 bits
p10 2.4 bits
p35-(21)-p10 312936 Gap 3.3 bits
p35-p10 312936 total 4.8 bits
p35-(25)-p10 312940 Gap 4
p35-p10 312940 total 6.1
*312950
5′ t c c a t t a a c g g a a a c c 3′
... p10 4.5 bits