

piece 1, NC\_000913, cadC\_pheU+, config: linear, direction: +, begin: 4359928, end: 4360593

\*4359930 \*      \*4359940 \*      \*4359950 \*      \*4359960 \*      \*4359970 \*      \*4359980 \*      \*4359990 \*      \*4360000 \*

5' t t c g c c a a c g c g a a c t a c a g g t t g t t g c a t a a t a g a a a c t c a t t c g a a a g g g a a t g a t g c a a t g a t a a t t g c c a c a a c c t 3'

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

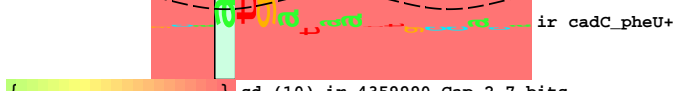
- ser - pro - thr - arg - thr - thr - gly - cys - cys - ile - ile - glu - thr - his - ser - lys - arg - glu - - -fMet - ile - ile - ala - thr - thr - tyr -

- arg - gln - arg - glu - leu - gln - val - val - ala - - -

...-----] NC\_000913.cadC



{-----} sd-(5)-ir 4359985 Gap 5.4 bits  
 {-----} sd-ir 4359985 cadC\_pheU+ total 6.7 bits



{-----} sd-(10)-ir 4359990 Gap 2.7 bits  
 {-----} sd-ir 4359990 cadC\_pheU+ total 11.8 bits  
 p35 3.0 bits

... p35-(23)-p10 4360009 Gap  
 ... p35-p10 4360009 total 6.7

p35 2.5 bits

... p35-(24)-p10 4360015 Gap  
 ... p35-p10 4360015 total 5.0

\*4360010 \*      \*4360020 \*      \*4360030 \*      \*4360040 \*      \*4360050 \*      \*4360060 \*      \*4360070 \*      \*4360080 \*

5' a t t t t t a c c a t c t a t a g a t g g g t t t a t t a c a t a t t a t t g g t g a a t g c a a g a c g t t a t t t t a c c a g c c a t a a a c t t c t t g 3'

- ile - phe - thr - ile - tyr - arg - trp - val - tyr - leu - his - ile - ile - gly - glu - cys - lys - thr - leu - phe - leu - pro - ala - ile - asn - phe - leu -

- phe - tyr - his - leu - -fMet - gly - leu - phe - thr - tyr - trp - -fMet - val - asn - ala - arg - arg - tyr - phe - tyr - gln - pro - -fMet - pro - lys - leu - leu - asp -

... p10 5.2 bits      ###> orf 12 codons

p35 1.7 bits

p10 5.2 bits

p10 6.5 bits

p10 4.9 bits

{-----} p35-(22)-p10 4360065 Gap 2.3 bits

... p35

|-----| p35-p10 4360065 total 4.6 bits

{-----} ... p35-(23)-p10 4360111 Gap

p35 3.0 bits

p35 4.1 bits

|--- ... p35-p10 4360111 total 5.4

{-----} p35-(26)-p10 4360080 Gap 3.7 bits

{-----} p35-p10 4360080 total 5.8 bits

... p35-(23)-p10 4360092 Gap

... p35-p10 4360092 total 4.3

... p35-(26)-p10 4360114 Gap

... p35-p10 4360114 total 5.4

... } p35-(23)-p10 4360009 Gap 1.4 bits  
 ... | p35-p10 4360009 total 6.7 bits

... {-----} p35-(24)-p10 4360015 Gap 2.4 bits  
 ... {-----} p35-p10 4360015 total 5.0 bits

\*4360090 \*      \*4360100 \*      \*4360110 \*      \*4360120 \*      \*4360130 \*      \*4360140 \*      \*4360150 \*      \*4360160 \*      \*4360170 \*

5' a t t a c a t a g t a t t a c g a a a g g a t t t t a c t g a g a a c c a g a a g t a a t a t t c o c t t a c c a t o a a a a t t c a t c a t c t t t g c c a a g 3'

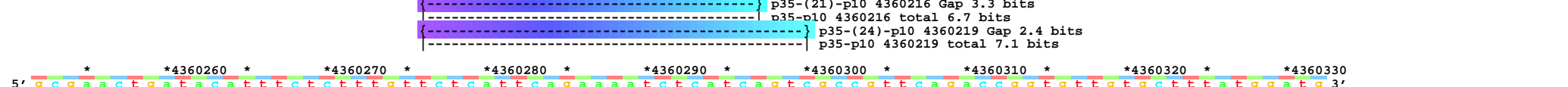
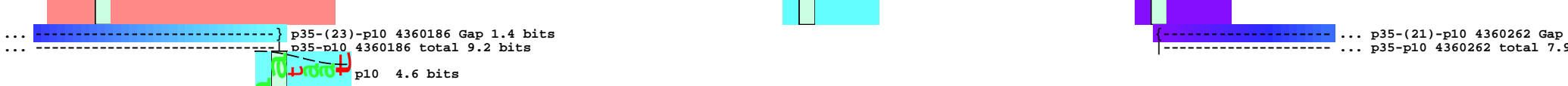
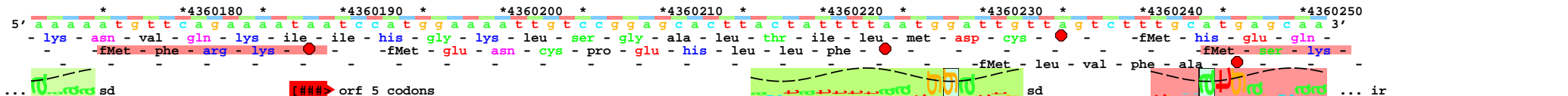
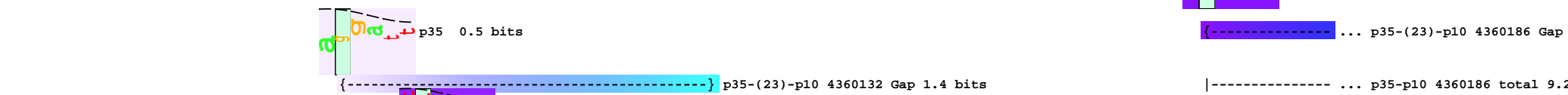
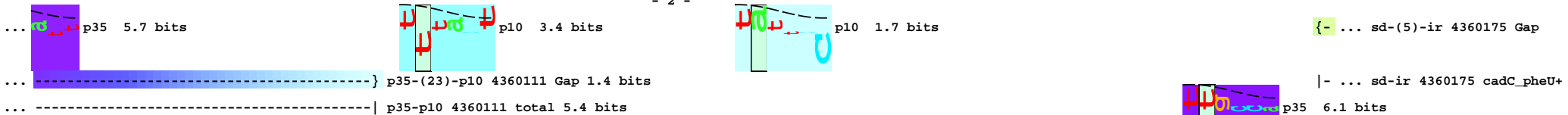
- ile - thr - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - -fMet - pro - lys -

p10 1.7 bits

p10 1.1 bits

p10 6.3 bits

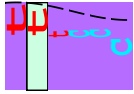




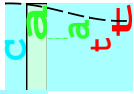
5' \*4360340 \*4360350 \*4360360 \*4360370 \*4360380 \*4360390 \*4360400 \*4360410  
c g t t a c g c t c c t g a t g a c g t c a t t t g a c g t t c a a c a g c a t c a c g g g g c c g c a c g a c a t t t c a c g t c a g t t a g t g c t a t a g c 3'  
- arg - tyr - ala - pro - asp - asp - val - ile -  
- val - thr - leu - leu - met - thr - ser - phe - asp - val - gln - gln - his - his - gly - ala - ala - arg - his - phe - thr - ser - val - ser - ala - ile - ala -  
- leu - arg - ser - -fMet - thr - phe - asn - ser - ile - thr - gly - pro - his - asp - ile - ser - arg - gln - leu - val - leu -

5' \*4360420 \*4360430 \*4360440 \*4360450 \*4360460 \*4360470 \*4360480 \*4360490  
t c a g g a a c a a a t t t t c c c g a a t t g g g a t a t g c c c g c a a a t t g c t g g t g a t g t g g g a g a a t c t g g t t g a g t t c g g t a g a a t 3'  
- gln - glu - gln - ile - phe - pro - asn - trp - asp - met - pro - ala - asn - cys - trp -  
-fMet - gly - arg - ile - trp - leu - ser - ser - val - glu - leu -

p35 3.8 bits [###] orf 73 codons ... p35



[###] orf 73 codons

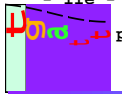


p10 2.8 bits

p35-(23)-p10 4360450 Gap 1.4 bits  
p35-p10 4360450 total 5.2 bits

5' \*4360500 \*4360510 \*4360520 \*4360530 \*4360540 \*4360550 \*4360560 \*4360570 \*  
t g a t t t g g a g g c a g a a c g c t t a a a t c g t g g c g t c c t g a a a c g a a a a c g g a c c t c c g t g g a g g t c c g t t t a t a t g a a t t t g 3'  
-fMet - glu - ala - glu - arg - leu - asn - arg - gly - val - leu - lys - arg - lys - thr - asp - leu - arg - gly - gly - pro - phe - ile -fMet - asn - leu -  
- ile - trp - arg - gln - asn - ala - -fMet - ala - ser - -fMet - glu - val - arg - leu - tyr - glu - phe - gly -

p35 5.7 bits p10 0.1 bits



p35-(23)-p10 4360518 Gap 1.4 bits  
p35-p10 4360518 total 4.3 bits

5' \*4360580 \*4360590  
g t g c c c g g a c t c g g a a t c 3'  
- val - pro - gly - leu - gly - ile -  
- ala - arg - thr - arg - asn -