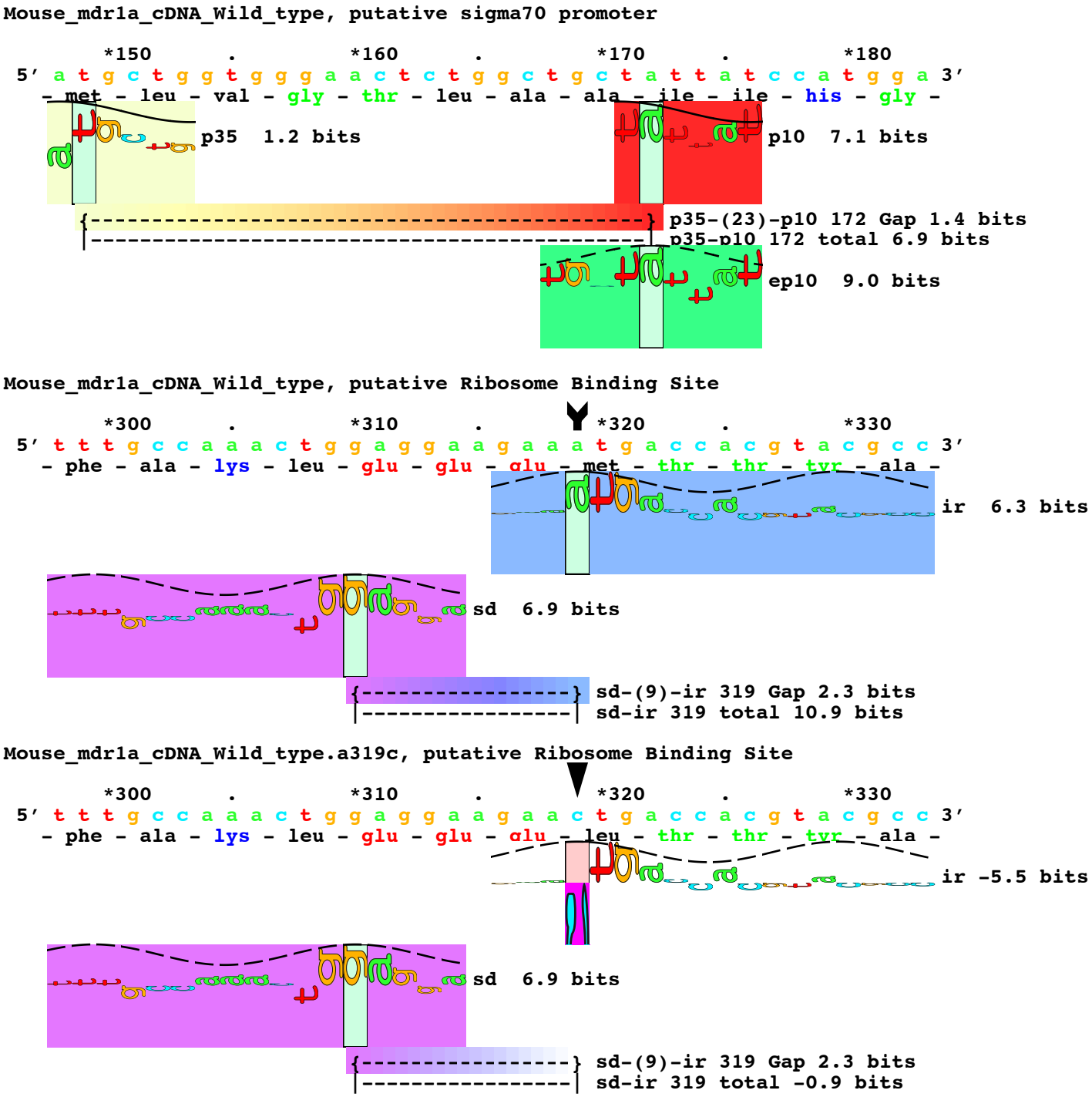
S1 Fig. Putative sigma 70 promoter and ribosome binding sites in mouse *mdr1a* cDNA. The coordinate system begins at the first base of the *mdr1a* coding region. For the first two sequences, flexible individual information models for *E. coli* sigma70 (yellow, red rectangular petals) [1] and extended -10 sigma70 (green) and ribosome binding sites (purple and blue) [2] were scanned over the sequence and displayed using sequence walkers [3]. The third sequence shows the effect of changing base 319 from an A to a C in M107L. This lowers the initiation codon from 6.3 bits to -5.5 bits, effectively removing the ribosome binding site.

1. Shultzaberger RK, Chen Z, Lewis KA, & Schneider TD (2007) Anatomy of Escherichia coli sigma70 promoters. Nucleic Acids Res 35: 771-788.
2. Shultzaberger RK, Bucheimer RE, Rudd KE, & Schneider TD (2001) Anatomy of Escherichia coli ribosome binding sites. J Mol Biol 313: 215-228.
3. Schneider TD (1997) Sequence walkers: a graphical method to display how binding proteins interact with DNA or RNA sequences. Nucleic Acids Res 25: 4408-4415.

S1 Figure


Mouse_mdr1a_cDNA_Wild_type, putative sigma70 promoter
*150 . *160 . *170 . *180
5′ a t g c t g g t g g g a a c t c t g g c t g c t a t t a t c c a t g g a 3′
- met - leu - val - gly - thr - leu - ala - ala - ile - ile - his - gly -
p35 1.2 bits
p10 7.1 bits
p35-(23)-p10 172 Gap 1.4 bits
p35-p10 172 total 6.9 bits
ep10 9.0 bits
Mouse_mdr1a_cDNA_Wild_type, putative Ribosome Binding Site
*300 . *310 . *320 . *330
5′ t t t g c c a a a c t g g a g g a a g a a a t g a c c a c g t a c g c c 3′
- phe - ala - lys - leu - glu - glu - glu - met - thr - thr - tyr - ala -
ir 6.3 bits
sd 6.9 bits
sd-(9)-ir 319 Gap 2.3 bits
sd-ir 319 total 10.9 bits
Mouse_mdr1a_cDNA_Wild_type.a319c, putative Ribosome Binding Site
*300 . *310 . *320 . *330
5′ t t t g c c a a a c t g g a g g a a g a a c t g a c c a c g t a c g c c 3′
- phe - ala - lys - leu - glu - glu - glu - leu - thr - thr - tyr - ala -
ir -5.5 bits
sd 6.9 bits
sd-(9)-ir 319 Gap 2.3 bits
sd-ir 319 total -0.9 bits