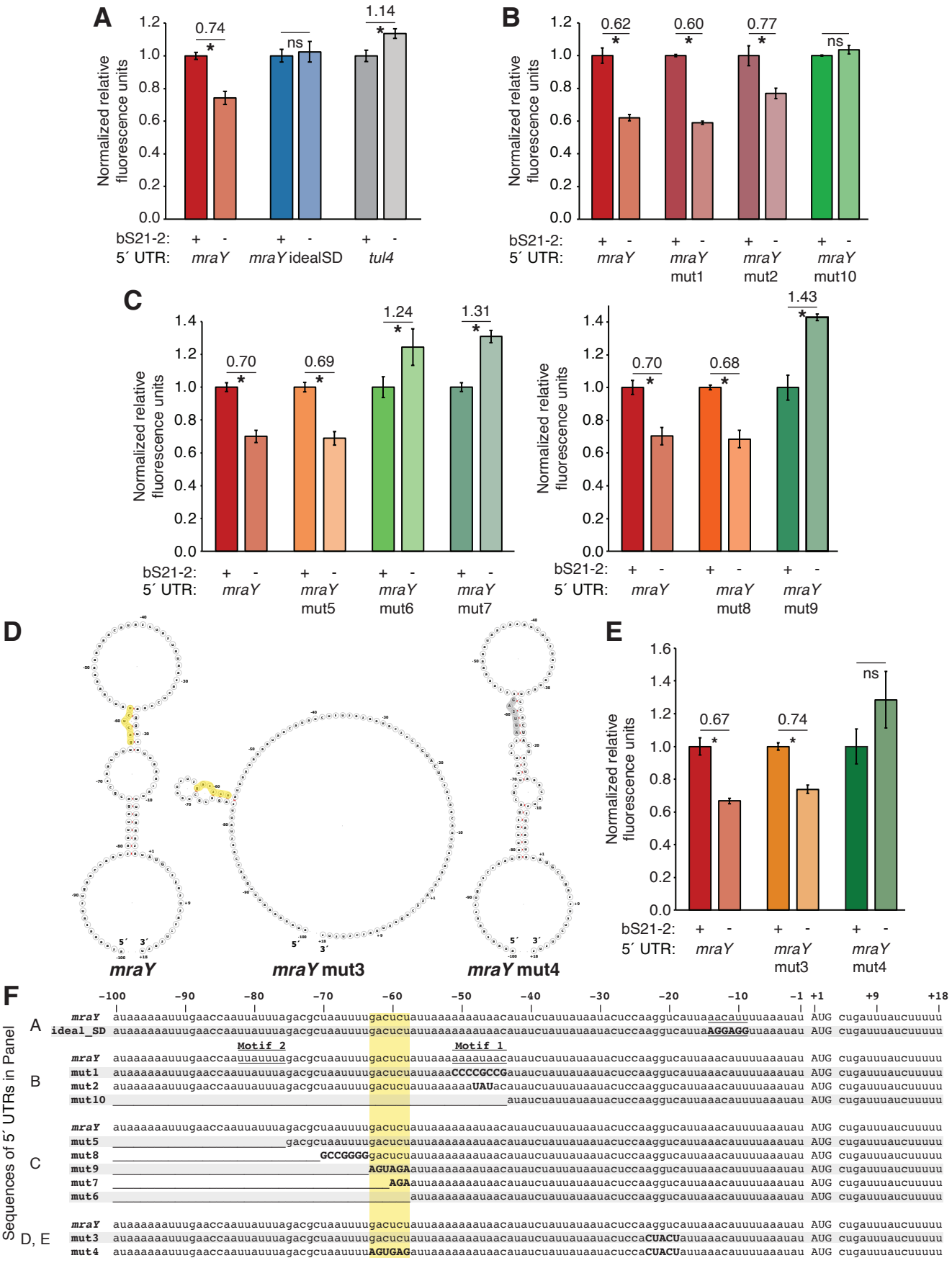
A
Normalized relative fluorescence units
0.74
ns
1.14
bS21-2: + - + - + -
5′ UTR: mraY mraY idealSD tul4
B
0.62
0.60
0.77
ns
bS21-2: + - + - + - + -
5′ UTR: mraY mraY mut1 mraY mut2 mraY mut10
C
0.70
0.69
1.24
1.31
bS21-2: + - + - + - + -
5′ UTR: mraY mraY mut5 mraY mut6 mraY mut7
0.70
0.68
1.43
bS21-2: + - + - + -
5′ UTR: mraY mraY mut8 mraY mut9
D
mraY
mraY mut3
mraY mut4
E
0.67
0.74
ns
bS21-2: + - + - + -
5′ UTR: mraY mraY mut3 mraY mut4
F
Sequences of 5′ UTRs in Panel
A
mraY auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
ideal_SD auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaAGGAGGuuaaauau AUG cugauuuaucuuuuu
B
Motif 2
Motif 1
mraY auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaaauaac auaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut1 auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaCCCCGCCGauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut2 auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaUAUacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut10 _____auaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
C
mraY auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut5 _____gacgcuaauuuugacucuauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut8 _____GCCGGGGgacucuauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut9 _____AGUAGAauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut7 _____AGAauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut6 _____auuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
D, E
mraY auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaaauaacauaucuauuauaauacuccaaggucauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut3 auaaaaaauuugaaccaauuauuuagacgcuaauuuugacucuauuaaaaaaaauaacauaucuauuauaauacuccaCUACUauuaaacauuuuaaauau AUG cugauuuaucuuuuu
mut4 auaaaaaauuugaaccaauuauuuagacgcuaauuuuuAGUGAGauuaaaaaaaauaacauaucuauuauaauacuccaCUACUauuaaacauuuuaaauau AUG cugauuuaucuuuuu