

Supplementary Information

Cyclic dinucleotide detection with riboswitch-G-quadruplex hybrid

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Experimental Section:

RNA sequences used in this study (5' to 3'):

F3-ST1Asym

GGGUAGGGUUGGGG**GCC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGC
AAAGCCUCCGGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAGCC**GGG

Length : 98 mer

Molar excitation coefficient (260 nm) : 1106200 mol⁻¹ L cm⁻¹

F3-ST2Asym

GGGUAGGGUUGGGG**CUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGC
AAAGCCUCCGGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAGCC**GGG

Length : 97 mer

Molar excitation coefficient (260 nm) : 1096900 mol⁻¹ L cm⁻¹

F3-ST3Asym

GGGUAGGGUUGGGG**CUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGC
CUCCGGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GGG**CGGG

Length: 97 mer

Molar excitation coefficient (260 nm) : 1093200 mol⁻¹ L cm⁻¹

F3-ST1Sym

GGGUAGGGG**GCC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCC
UCCGGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAGCC**GGGUUGGG

Length : 98 mer

Molar excitation coefficient (260 nm) : 1106200 mol⁻¹ L cm⁻¹

F3-ST2Sym

GGGUAGGGG**CUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAG**CGGGUUGGG

Length : 97 mer

Molar excitation coefficient (260 nm) : 1096900 mol⁻¹ L cm⁻¹

F3-ST3Sym

GGGUAGGGG**CUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GGG**CGGGUUGGG

Length : 97 mer

Molar excitation coefficient (260 nm) : 1093200 mol⁻¹ L cm⁻¹

F3-ST4Sym

GGGUAGGGG**CAC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCC
UCCGGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GUG**CGGGUUGGG

Length : 97 mer

Molar excitation coefficient (260 nm) : 1109900 mol⁻¹ L cm⁻¹

F3-ST5Sym

GGGUAGGGG**CAG**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**CUG**CGGGUUGGG

Length : 97 mer

Molar excitation coefficient (260 nm) : 1109900 mol⁻¹ L cm⁻¹

F3-ST6Sym

GGGUAGGGG**ACUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAGU**CGGGUUGGG

Length : 99 mer

Molar excitation coefficient (260 nm) : 1122200 mol⁻¹ L cm⁻¹

F3-ST7Sym

GGGUAGGGG**GCUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAGC**CGGGUUGGG

Length : 99 mer

Molar excitation coefficient (260 nm) : 1116100 mol⁻¹ L cm⁻¹

F2-ST2Sym

GGUAGGG**CUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GAG**CGGUUGG

Length : 93 mer

Molar excitation coefficient (260 nm) : 1050100 mol⁻¹ L cm⁻¹

F2-ST5Sym

GGUAGGG**CUC**GCACAGGGCAAACCAUUCGAAAGAGUGGGACGCAAAGCCUCC
GGCCUAAACUUCGGUAGGUAGCGGGGUUACC**GGG**CGGUUGG

Length : 93 mer

Molar excitation coefficient (260 nm) : 1046400 mol⁻¹ L cm⁻¹