



Mosquito molecular taxonomy oligonucleotide primer characteristics

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	Mosq-F (generic)	Mosq-RAE2 (Aedes specific)	Mosq-RCX (Culex specific)	Mosq-R2 (generic)
Sequence as mapped	TGTGAACTGCAGGACACAT	CGTATGCRKVG TGA YGTTTTTC	GCTGGCAAACATTCAAGAC	ATGTGTGACTACCCCTAAA
Sequence as ordered		GAAAACRTCACBMYGCATACG	GTCTTGAATGTTTTGCCAGC	TTTAGGGGGTAGTCACACAT
Length (bp)	19	21	20	20
GC content (%) ¹	47.4	48.4	45	45
Melt Temp (°C) ¹	53.9	54.4	52.8	52.6
Hairpin ΔG ²	-1.75	0.97	1.04	-0.02
Homodimer ΔG ²	-10.24	-14.23	-3.14	-1.47
Heterodimer Mosq-F ²	—	-11.79	-5.09	-6.82
Heterodimer Mosq-RAE ΔG ²	-5.25	-7.39	-8.16	-1.57
Heterodimer Mosq-RAE2 ΔG ²	-11.71	—	-11.37	-9.46
Heterodimer Mosq-RCx ΔG ²	-5.09	-11.37	—	-4.77
Heterodimer R ΔG ²	-5.47	-9.46	-6.95	-4.85
Heterodimer R2 ΔG ²	-6.82	-8.02	-4.77	—
Reference	Mewara A, 2018	Jurado-Sánchez N, 2022	Wong-Arce MF, 2019	Jurado-Sánchez N, 2022

Notes: 1.- Calculated with IDT's Oligo Analyzer tool (<https://www.idtdna.com/calc/analyzer>) using 0.2uM oligonucleotide concentration, 50 mM Na⁺ concentration, 2 mM Mg⁺⁺ concentration and 2.4 mM dNTP concentration.

2.- Delta G's shown as kcal/mole and calculated using oligonucleotide sequence as ordered (in bold those exceeding -7 kcal/mole).