

Table S2. Sensitivity and specificity values at each timepoint EcoDess Cohort, SD BIOLINE Dengue IgG/IgM RDT (estimate and 95% confidence intervals).

Timepoint	0.25 hrs	0.5 hrs	0.75 hrs	1 hr	1.5 hrs	2 hrs	3 hrs
All DENV+ samples							
Qualitative Sensitivity	41 (28-56)	70 (53-82)	80 (66-89)	96 (85-99)	97 (87-100)	95 (85-99)	98 (88-100)
Qualitative Specificity	100 (87-100)	100 (84-100)	96 (79-100)	80 (61-91)	88 (66-98)	76 (57-89)	36 (20-55)
Quantitative Sensitivity at Optimal (≥98%) Specificity	57 (42-70)	31 (64-98)	57 (42-70)	16 (10-50)	62 (46-75)	36 (24-51)	52 (38-66)
Optimal (≥98%) Quantitative Specificity	100 (87-100)	100 (84-100)	100 (86-100)	100 (87-100)	100 (82-100)	100 (87-100)	100 (87-100)
Quantitative Sensitivity at Minimum (≥90%) Specificity	70 (56-82)	61 (45-75)	64 (49-76)	55 (40-68)	69 (54-81)	75 (61-85)	86 (73-94)
Minimum (≥90%) Quantitative Specificity	92 (75-99)	90 (70-98)	91 (73-98)	92 (75-99)	94 (73-100)	92 (75-99)	92 (75-99)
Only DENV+ primary samples							
Qualitative Sensitivity	16 (6-38)	44 (23-67)	53 (32-73)	79 (57-91)	83 (61-94)	95 (75-100)	95 (75-100)
Qualitative Specificity	100 (87-100)	100 (84-100)	100 (86-100)	92 (75-99)	88 (66-98)	80 (61-91)	40 (23-59)

Table S3. Sensitivity and specificity values at each timepoint for the Nicaragua Cohort samples evaluated using the Excivion Dengue RDT (estimate and 95% confidence intervals are shown).

Timepoint	0.5 hrs	0.75 hrs	1 hr
All DENV+ samples			
Qualitative Sensitivity	79 (62-89)	Not collected	Not collected
Qualitative Specificity	79 (57-92)	Not collected	Not collected
Quantitative Sensitivity at Optimal ($\geq 98\%$) Specificity	49 (33-65)	52 (32-72)	75 (51-90)
Optimal ($\geq 98\%$) Quantitative Specificity	100 (83-100)	100 (80-100)	100 (72-100)
Quantitative Sensitivity at Minimum ($\geq 90\%$) Specificity	64 (47-78)	62 (41-79)	81 (57-93)
Minimum ($\geq 90\%$) Quantitative Specificity	95 (75-100)	93 (70-100)	90 (60-100)
Only DENV+ primary samples			
Qualitative Sensitivity	67 (44-84)	Not collected	Not collected
Qualitative Specificity	79 (57-91)	Not collected	Not collected

Table S4. Sensitivity and specificity values at each timepoint for the Nicaragua Cohort samples evaluated using the Excivion Zika RDT (estimates and 95% confidence intervals are shown).

Timepoint	0.5 hrs	0.75 hrs	1 hr
Qualitative Sensitivity	100 (89-100)	Not collected	Not collected
Qualitative Specificity	70 (40-89)	Not collected	Not collected
Quantitative Sensitivity at Optimal ($\geq 98\%$) Specificity	93 (79-99)	97 (83-100)	100 (89-100)
Optimal ($\geq 98\%$) Quantitative Specificity	100 (72-100)	100 (72-100)	100 (72-100)
Quantitative Sensitivity at Minimum ($\geq 90\%$) Specificity	100 (89-100)	100 (89-100)	100 (89-100)
Minimum ($\geq 90\%$) Quantitative Specificity	90 (60-100)	90 (60-100)	90 (60-100)