



Tarangnan Community Hospital
Clinical Laboratory • Serology Section

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Parent document: SOP-S-004, Sections 5.3–5.6 |
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Applies to: Medical Technologists and Laboratory Aides | **Effective date:** MM-DD-YYYY | **Supersedes:** None

Dengue Duo (NS1 Ag + IgM/IgG) & Typhoid IgM/IgG Rapid Test Bench Card

Acute Febrile Infection Differential • Standard Q Dual Window • Strict Volumes • RA 11332 Surveillance

BIOSAFETY: Wear gloves; discard droppers/cassettes into biohazard/sharps waste; decontaminate spills per waste SOP.

PART A: SD BIOSENSOR STANDARD Q DENGUE DUO (REF QDEN01D)

- 1 Left Window — Dengue NS1 Antigen:** Dispense exactly **100 µL** (supplied dropper) of serum into round NS1 sample well (S). **DO NOT add chase buffer to NS1 well.** Start digital timer immediately.

SOP 5.3.2

100 µL (NO Buffer)

- 2 Right Window — Dengue IgM/IgG Antibodies:** Dispense exactly **10 µL** of serum into IgM/IgG sample well (S) using calibrated capillary dropper. Hold buffer bottle vertically and add **3 drops (~90 µL)** into buffer well. Start timer. SOP 5.3.3

10 µL + 3 drops buffer

- 3 STOP / STRICT CUTOFF Dengue Reading Window:** Read results at **15 to 20 minutes**. **DO NOT interpret after 20 minutes.** Control line (C) must appear on both windows for valid testing. SOP 5.3.2–3

15–20 min (STOP > 20)

PART B: SALMONELLA TYPHI (TYPHOID IGM/IGG) RAPID IMMUNOASSAY

- 4 Typhoid Inoculation & Buffer Addition:** Dispense exactly **10 µL** of serum into sample well (S) with micropipette. Hold buffer dropper vertically and immediately add **2 drops (~60–80 µL)** of Typhoid assay buffer. Start timer. SOP 5.4.2

10 µL + 2 drops buffer

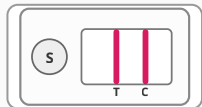
- 5 STOP / STRICT CUTOFF Typhoid Reading Window:** Read results at **15 to 20 minutes**. **DO NOT interpret after 20 minutes** (non-specific precipitation creates false lines). Control line (C) is mandatory. SOP 5.4.3

15–20 min (STOP > 20)

EXTERNAL QUALITY CONTROL (ISO 15189:2022 §7.3.7)

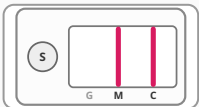
Run kit positive/negative controls with each new lot/shipment or at the SOP-defined frequency; log lot number and expiry (ISO 15189:2022 §7.3.7).

DENGUE NS1 +



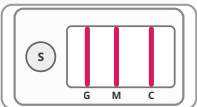
C + T (NS1). Acute viremia
(Day 1–5). Urgent alert.

DENGUE IgM +



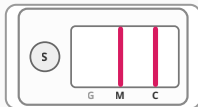
C + M lines. Acute primary /
recent dengue.

DENGUE 2ND (M+G)



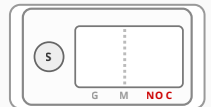
C + M + G lines. Active
secondary dengue.

TYPHOID IgM +



C + M lines. Acute primary
typhoid fever.

INVALID (NO C)



Missing C line. Test VOID.
Retest with fresh cassette.

VOLUME & TIMING COMPARISON (SOP 5.5)

Assay	Specimen Vol.	Buffer Vol.	Reading Window
Dengue NS1	100 µL (dropper)	None (specimen only)	15–20 min (max 20)
Dengue IgM/G	10 µL (capillary)	3 drops (~90 µL)	15–20 min (max 20)
Typhoid IgM/G	10 µL (pipette)	2 drops (~60–80 µL)	15–20 min (max 20)

RA 11332 DISEASE SURVEILLANCE & CLINICAL ACTION (SOP 5.7)

- Mandatory Notification:** Dengue & Typhoid are notifiable infectious diseases under RA 11332.
- Reporting Protocol:** Enter into Infectious Disease Logbook; submit case report to HESU and IPCC within **24 hours**.
- Clinical Correlation:** Correlate Dengue with CBC (platelet < 100,000/µL, hematocrit rise > 20%).

Prepared by: Chief Medical Technologist
Signature / Date: _____

Reviewed by: Pathologist
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Signature / Date: _____