BIOCREDIT
Dengue NS1 Ag & Dengue IgG/IgM
Diagnosis of dengue infection through all stages

About Dengue
- Arthropod-borne disease by Aedes aegypti
- No specific antiviral drug
- No protective vaccine
- Early diagnosis is essential to enable good management and prevention of large outbreack

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BIOCREDIT
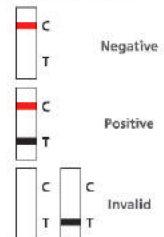### Dengue NS1 Ag CE

DUAL COLOR SYSTEM

- Intended use : Detection of dengue virus NS1 antigen
- Storage : 1 - 40°C
- Specimen type : Serum, Plasma, Whole blood (30ul)
- Time to result : 20 minutes
- Shelf life : 24months
- Sensitivity : 98.5%
- Specificity : 98.6%

Detecting NS1 Antigen
NS1 Ag is present in high concentration during the first few days of illness and it stays in serum as the infection subsides(up to 14 days)

Interpretation

C / T — Negative
C / T — Positive
C / T — Invalid

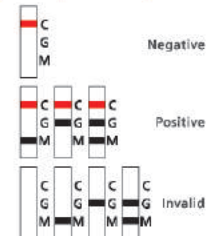### BIOCREDIT
Dengue IgG/IgM CE

DUAL COLOR SYSTEM

- Intended use : Detection of dengue virus antibodies (IgG&IgM)
- Storage : 1 - 40°C
- Specimen type : Serum, Plasma : (5ul), Whole blood (10ul)
- Time to result : 20 minutes
- Shelf life : 24months
- Sensitivity : Ig G – 98.2% / Ig M – 93.3%
- Specificity : Ig G – 89.5% / Ig M – 91.5%

Detectiog IgG/IgM Antibodies
Primary dengue infection typically induces a stronger and more specific IgM response than secondary infections, where the IgM response is low compared to a strong IgG response
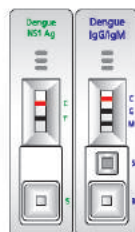
Interpretation

C / G / M — Negative
C / G / M — Positive
C / G / M — Invalid

BIOCREDIT
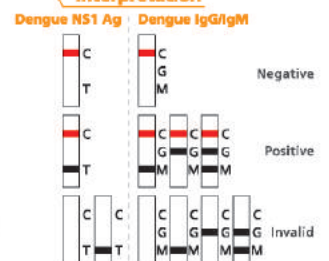### Dengue NS1 Ag+Ab Duo CE

DUAL COLOR SYSTEM

- Intended use : Detection of dengue virus antigen and antibodies
- Storage : 1 - 40°C
- Specimen type :
    NS1 : Serum, Plasma, Whole blood (30ul)
    IgG/IgM : Serum, Plasma : (5ul), Whole blood (10ul)
- Time to result : 20 minutes
- Shelf life : 24months

Combination assay : NS1 + Ab
The combined use of NS1 Ag and IgG/IgM Ab assays enables accurate diagnosis of dengue infection
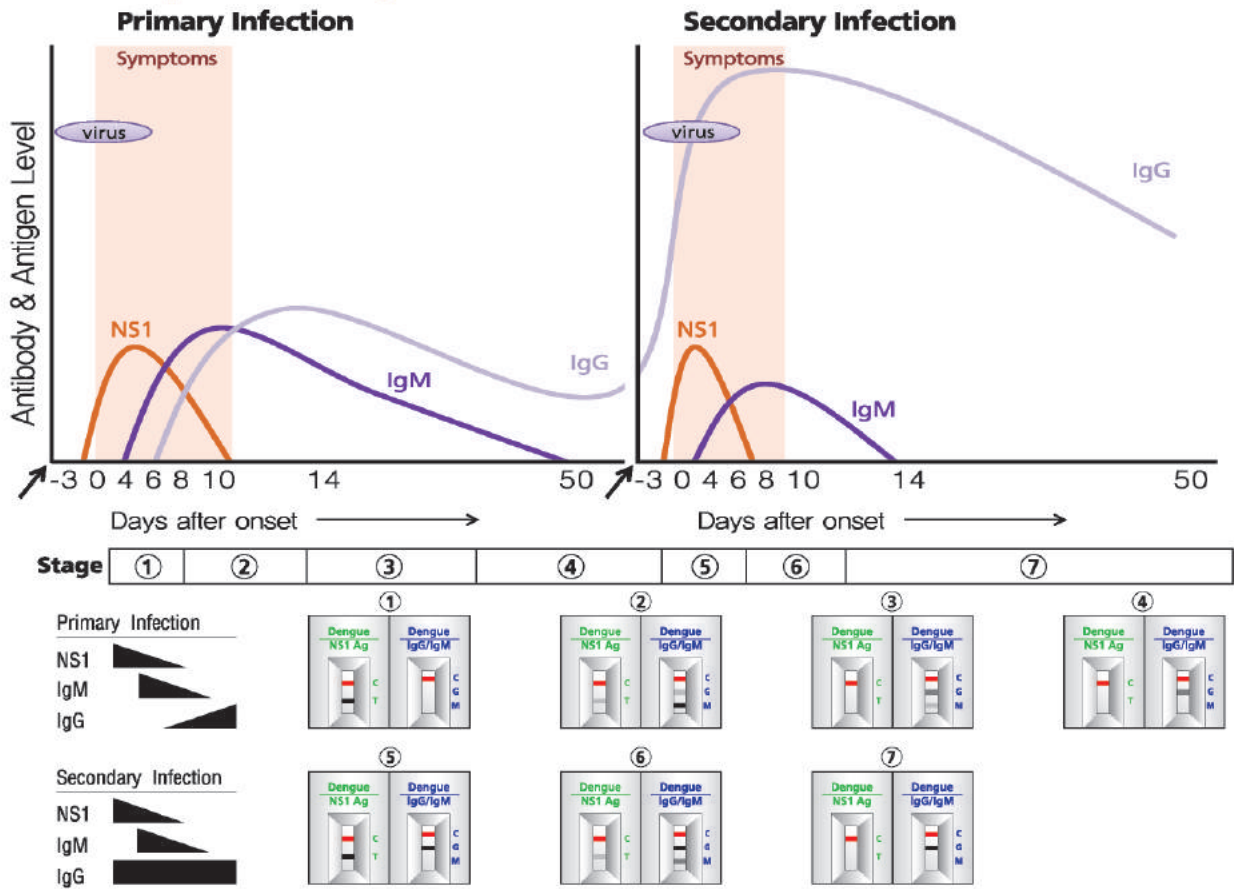
Interpretation

Dengue NS1 Ag | Dengue IgG/IgM
Negative
Positive
Invalid

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Dengue NS1 Ag & Dengue IgG/IgM
Diagnosis of dengue infection through all stages

Immune response to dengue infection

Primary Infection

Antibody & Antigen Level
virus
Symptoms
NS1
IgG
IgM
-3 0 4 6 8 10   14   50
Days after onset

Secondary Infection

virus
Symptoms
IgG
NS1
IgM
-3 0 4 6 8 10   14   50
Days after onset

Stage ① ② ③ ④ ⑤ ⑥ ⑦

Primary Infection
NS1
IgM
IgG

Secondary Infection
NS1
IgM
IgG

[Detecting Stages]
- **NS1 Antigen** : For the 9 days after onset of fever. (secreted form or revealed on infected cell surface)
- **Ig M** : From the day 5 until 90 after onset of fever
- **Ig G** : From the day 10~14 after onset of fever

■ Test Procedure

Dengue NS1 Ag

DUO 1

1. Add 30ul (serum, plasma or whole blood) of specimen into the sample well using disposal dropper provided or micropipette.
2. Add 2drops of assay diluents into the sample well. **2drops**
3. Read result within 20minuntes. **Read result within 20min** `00:20:00`

Dengue IgG/IgM

2

1. Add 5ul (Serum or plasma) or 10ul (whole blood) of specimen into the sample well using capillary pipette or micropipette.
2. Put 3~4 drops of assay diluents into the buffer well. **3~4 drops**
3. Read result within 20minuntes. **Read result within 20min** `00:20:00`

■ Compared to Reference Assay

Dengue NS1 Ag

Reference assay (RT-PCR)	Dengue NS1 Ag		Total	Sensitivity	Specificity
	Positive	Negative			
Positive	133	2	135		
Negative	2	148	150	98.5 %	98.6%
Total	135	150	285		

Dengue IgG / IgM

Reference assay (ELISA)		Dengue IgG/IgM		Total	Sensitivity	Specificity
		Positive	Negative			
IgG	Positive	56	1	57		
	Negative	11	94	105	98.2 %	89.5 %
	Total	67	95	162		
IgM	Positive	28	2	30		
	Equivocal*	3	0	3		
	Negative	11	118	129	93.3 %	91.5 %
	Total	42	120	162		