

# New Paradigm for Syphilis Diagnosis!

## **SD** **BIO LINE** **Syphilis 3.0**



### **One Step**

No need preprocessing  
Whole blood available

### **Simple**

No equipment required  
Room temperature storage

### **Rapid**

10 minutes  
One step test

### **Accurate**

Detecting all isotypes of Ab( IgG,IgM,IgA)  
Evaluated by WHO with excellent performance

## Treponemal Test.

- Sensitivity : 99.3%, Specificity : 99.5% (vs. TPHA)
- No “biological false positive(BFP)”

## The 3rd Generation One Step Anti-TP Test.

- Direct sandwich method (Ag–Ab–Ag combination)
- Detecting all isotypes of antibodies, IgG, IgM, IgA
- Using recombinant antigen (17Kd, 15Kd) – Gold conjugate

## High Sensitivity in Primary and Late Syphilis.

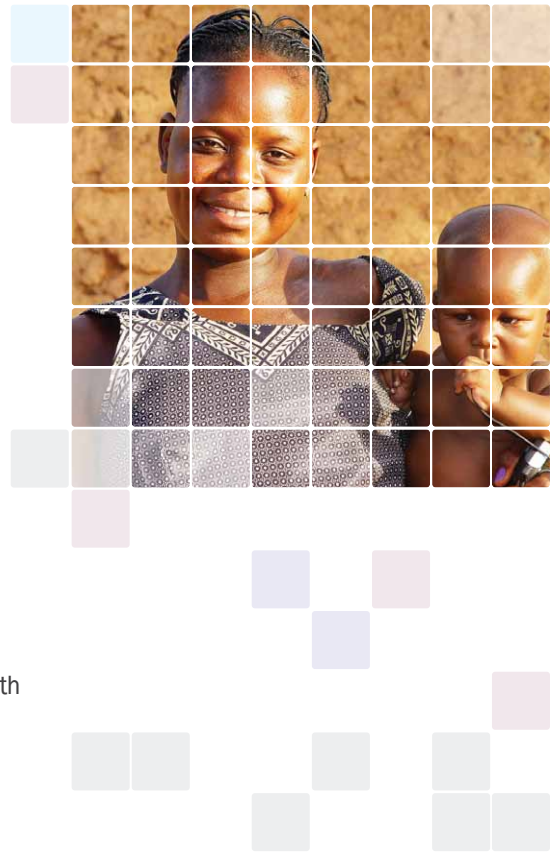
- Early diagnosis to detect IgM
- Excellent sensitivity in primary syphilis, even missed by TPHA

## Simple & Easy Test Procedure.

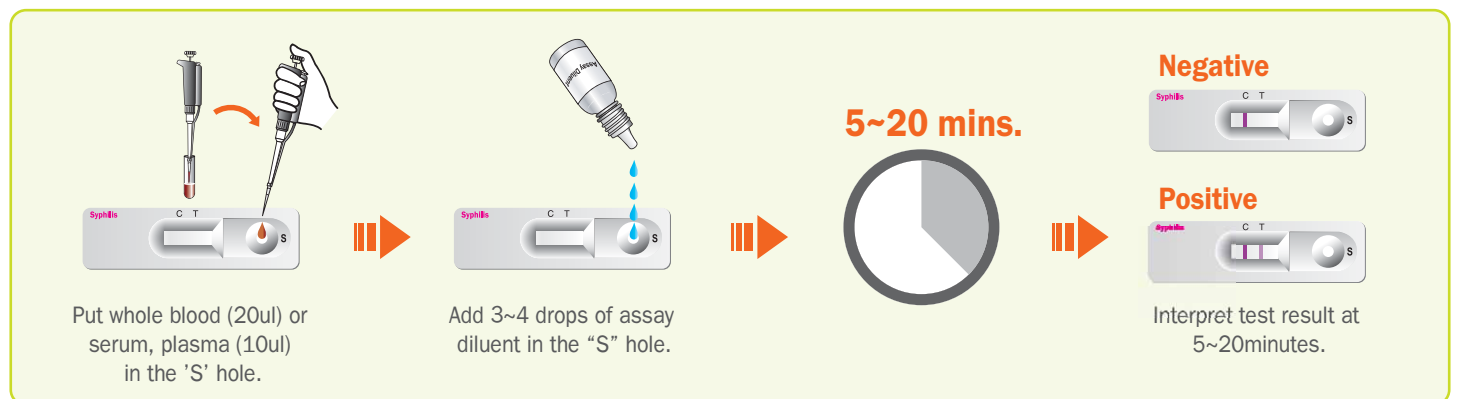
- Sample : Serum, Plasma or Whole blood
- No equipment or electricity required
- Assay time : 5~20mins.

## Evaluated By WHO, US CDC, PATH etc.

- Evaluated by WHO SDI(Sexually transmitted diseases Diagnostics Initiative) with excellent performance
- Procurement contracts with WHO and UNICEF



## Test Procedure



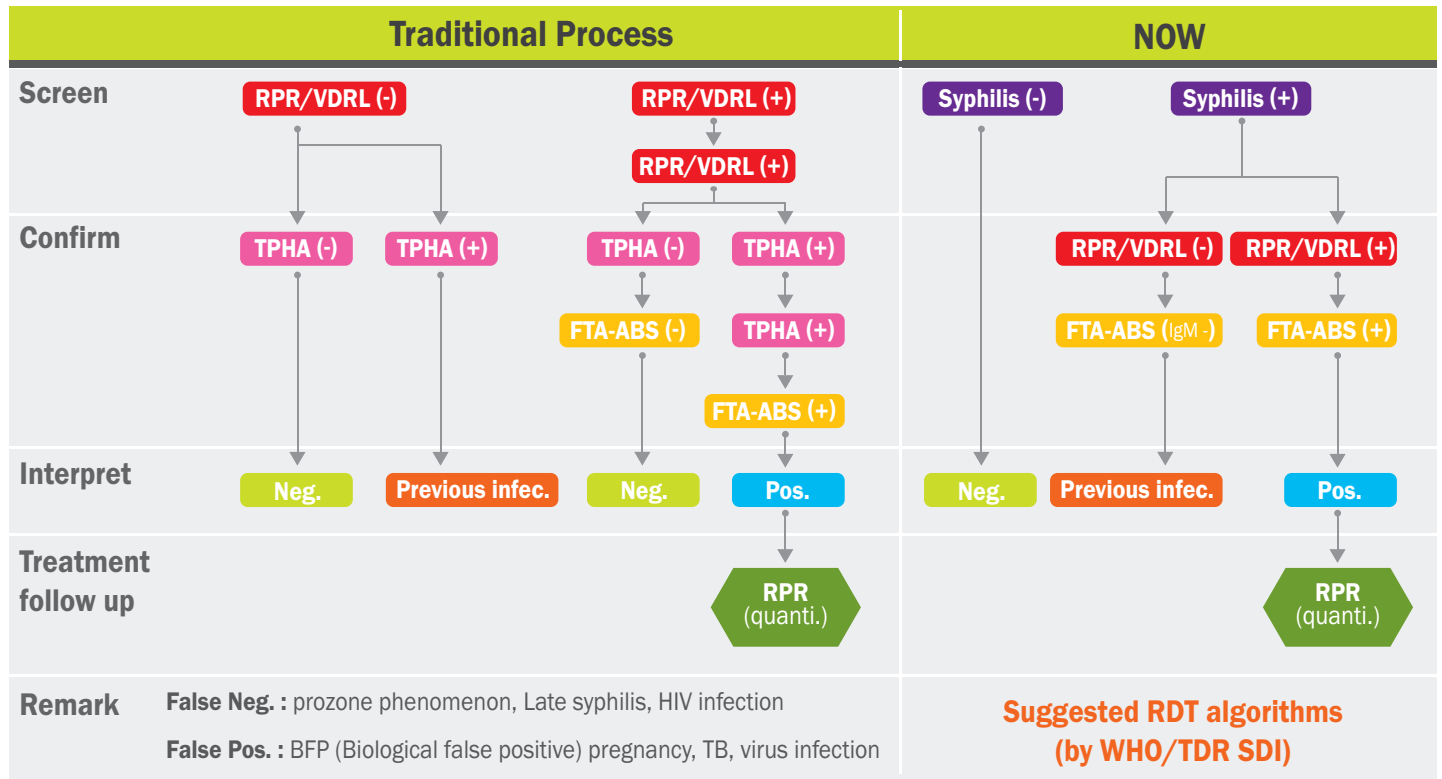
## Comparison of Rapid test(ICA) vs Non-treponemal test

	Non-treponemal tests (RPR or VDRL)	Rapid test (ICA)
Advantages	<ul style="list-style-type: none"> <li>- Simple to perform</li> <li>- Can distinguish between active and past treated infection</li> </ul>	<ul style="list-style-type: none"> <li>- Treponemal test</li> <li>- Simple to perform</li> <li>- Can be used with whole blood, serum or plasma</li> <li>- No equipment or electricity required</li> <li>- Can be transported and stored at room temperature below 30°C</li> <li>- No prozone effect</li> <li>- No biological false positive</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>- Require electricity for refrigerator to store reagent, and for a rotator and centrifuge</li> <li>- Cannot be used with whole blood</li> <li>- False negative results can occur with excessive antibody (prozone effect)</li> </ul>	<ul style="list-style-type: none"> <li>- Give anti-TP informations about current and previous TP infection without differentiation</li> </ul>

# Rapid Test, the optimal choice for mass screening program.



## Suggested testing algorithms



## Evaluation of six rapid tests for syphilis

Company	Sensitivity	Specificity
<b>SD BIOLINE SYPHILIS 3.0, Korea</b>	<b>100%</b>	<b>100%</b>
A company, USA	100%	97.90%
F company, JP	98% (100% after 1hr)	100% (100% after 1hr)
O company, UK	96%	100%
D company, Italy	94.5% (96.3% after 1hr)	94% (96% after 1hr)
Q company, India	94%	100%



## I Comparison of Diagnostic Method

### Treponemal

Direct & Specific diagnostic methods of anti-treponema pallidum (TP) antibody

- **Rapid, EIA, TPHA, FTA-ABS**
- **Merit** : high specificity & sensitivity
- **Demerit** : detection of previous infection history

### Non- Treponemal

Indirect & Non-specific diagnostic methods of anti-treponema pallidum (TP) antibody

- **RPR, VDRL**
- **Merit** : showing current infection
- **Demerit** : low sensitivity, low specificity

Method	RPR	TPHA	FTA-ABS	Syphilis Rapid
<b>Assay Time</b>	10~20mins.	2~24hrs.	6hrs.	5~20mins.
<b>Sensitivity</b>			Gold Standard	
Primary	40~50 %	80~90 %		99 %
Secondary	60~70 %	99 %		99 %
Latent & tertiary	10~20 %	99 %		99 %
<b>Specificity</b>	70~80 %	99.5 %		99.5 %
<b>Strength</b>	Current infection	High specificity	Differentiation between IgM/IgG	High sensitivity Early detection
<b>Weakness</b>	Low sensitivity Low specificity	Anti-TP detection of current & previous infection	Equipment needed	Anti-TP detection of current & previous infection
<b>Use</b>	Screen Treatment follow up	Screen/confirm	Confirm	Screen

## I Ordering Information

Product	Cat. No.	Component	Type	Tests/Kit	Specimen	Storage
SD BIOLINE Syphilis 3.0	06FK10	Test device, assay diluent	Device	1T x 30	Whole blood, serum, plasma	1~30°C 24mons.
	06FK16	Test device, assay diluent, capillary	Device	1T x 30		
	06FK17	Test device, assay diluent, capillary, lancet	Device	1T x 50		
	06FK11	Test device, assay diluent	Multi-device	10T x 10		
	06FK12	Test strip, assay diluent	Strip	25T		

## I Logistic Information

Cat. No.	Pack Size	Kits per Carton	Carton Size(cm)	Carton G/Weight(kg)	CBM Weight(kg)
06FK10	1T x 30/kit	40 kits	53 x 48 x 40	14 kg	17 kg
06FK11	10T x 10/kit	40 kits	53 x 48 x 40	21.5 kg	17 kg
06FK12	25T/kit	387 kits	53 x 48 x 40	21 kg	17 kg