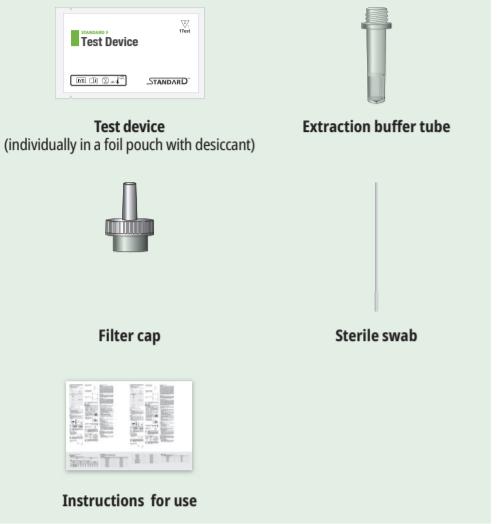


**EN** **REF F-CDF-01**  
**STANDARD F**  
**C. difficile Toxin A/B FIA**  
**STANDARD™ F C. difficile Toxin A/B FIA**

PLEASE READ INSTRUCTIONS CAREFULLY BEFORE YOU PERFORM THE TEST

**KIT CONTENTS**



**MATERIALS REQUIRED BUT NOT PROVIDED**

- STANDARD F Analyzer

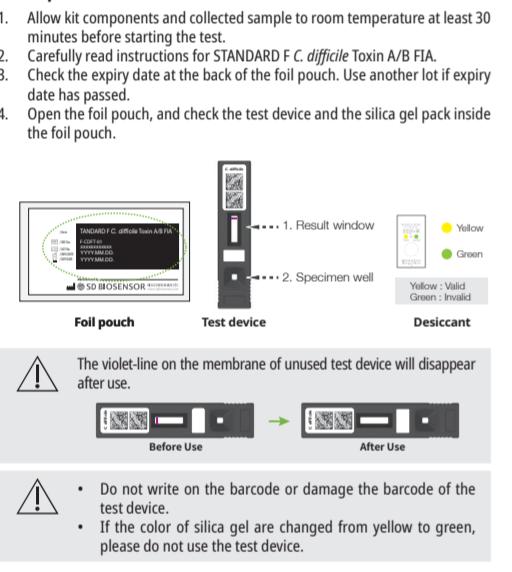
**SPECIMEN COLLECTION AND PREPARATION**

**Feces**

- Fecal specimen should be collected in a clean and dry container and collected at any time of the day may be used.
- Urine should be excluded from the fecal specimen.
- Fresh fecal specimen should be used in this test. Do not use any transport media to store and transport the fecal specimen.
- Fecal specimen may be stored in a refrigerator at 2-8°C for up to 24 hours.
- For prolonged storage, specimens may be frozen under -20°C.
- It should be brought to room temperature prior to use.

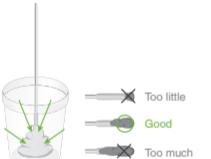
**PREPARATION AND TEST PROCEDURE**

**■ Collection of sample**



**■ Preparation**

- Poke the 4 different areas of the fecal sample using the sterile swab to collect a portion of feces (about 40-70mg). In case of liquid sample, soak the sterile swab completely in the liquid fecal sample.



**PERFORMANCE CHARACTERISTICS**

**■ Clinical evaluation**

- Limit of detection  
The limit of detection of STANDARD F C. difficile Toxin A/B FIA is as follows:

Antigen	Limit of Detection	
Toxin A (Sigma)	0.49 ng/ml	
Toxin B (Bionote)	0.54 ng/ml	

**2. Precision**

STANDARD F C. difficile Toxin A/B FIA totally meet the acceptance criteria of repeatability and reproducibility.

**1) Toxin A**

Panel No.	Operator	Operator 1			Operator 2			Operator 3		
		Site 1			Site 2			Site 3		
Lot	Lot 1	Lot 2	Lot 3	Lot 1	Lot 2	Lot 3	Lot 1	Lot 2	Lot 3	
CIFF-TOXIN A/B-1801-P02	100%	100%	100%	100%	100%	100%	100%	100%	100%	
CIFF-TOXIN A/B-1801-P01	98%	97%	98%	98%	98%	98%	98%	97%	97%	
CIFF-TOXIN A/B-1801-N00	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Panel No.	Operator	Operator 1			Operator 2			Operator 3		
		Site 1			Site 2			Site 3		
Lot	Lot 1	Lot 2	Lot 3	Lot 1	Lot 2	Lot 3	Lot 1	Lot 2	Lot 3	
CIFF-TOXIN A/B-1801-P02	100%	100%	100%	100%	100%	100%	100%	100%	100%	
CIFF-TOXIN A/B-1801-P01	98%	98%	97%	97%	98%	100%	97%	98%	97%	
CIFF-TOXIN A/B-1801-N00	0%	0%	0%	0%	0%	0%	0%	0%	0%	

**3. Relative sensitivity & specificity (LFIA product compared)**

Relative sensitivity : 95% (64/67)

Relative specificity : 100% (70/70)

**The amount of fecal swab may affect the results. It is required to follow the swab amount of feces as shown in the picture above. Excessive fecal amount may induce a false positive result and slow migration.**

- Take off the top of an extraction buffer tube and insert the swab into the tube.
- Swirl the swab at least ten times into the extraction buffer tube to dissolve the sample.
- Remove the swab and dispose of the used swab in accordance with your biohazard waste disposal protocol.
- Tightly press down the filter cap onto the tube.

- Do not use the extraction buffer tube without the filter cap. It affects the result value.**
- Retire the top of the tube buffer de extraction e inserte el hisopo en el tubo.
  - Mezcle con el hisopo al menos diez veces en el tubo buffer de extracción para disolver la muestra.
  - Retire el hisopo utilizado y deseágase de ella en concordancia con el protocolo para desechos sanitarios.
  - Asegure firmemente la tapa filtro en el tubo.

**INTERPRETATION OF TEST RESULT**

Result	COI (Cutoff index) value	Interpretation
C. difficile Toxin A Positive	COI ≥ 1.0	Detection of C. difficile Toxin A
C. difficile Toxin A Negative	COI < 1.0	No detectable C. difficile Toxin A detected.
C. difficile Toxin B Positive	COI ≥ 1.0	Detection of C. difficile Toxin B
C. difficile Toxin B Negative	COI < 1.0	No detectable C. difficile Toxin B detected.
Invalid	N/A	Retest with a new test device and a new patient sample

- How to use calibration set**  
Calibration set test is a mandatory function that ensures optimal performance by checking the internal analyzer optics and functions.
- Select the 'Calibration' menu.
  - The specific calibration set is included with the analyzer.
  - Insert the CAL-1 first, and then insert the CAL-2 for UV-LED testing and the CAL-3 for RGB-LED testing.

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- STANDARD F analyzer automatically calibrate and identify the optical performance through measuring the membrane of the test device whenever the test is conducted in 'Standard' mode. If 'EEF' message displays on the screen, it means that the analyzer has a problem, so check with test device. Contact the SD BIOSENSOR local distributor if the 'EEF' message still appears.

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- External quality control**  
Control quality testing should be run to check the performance of STANDARD F C. difficile Toxin A/B FIA and STANDARD F Analyzers. STANDARD C. difficile Toxin A/B Control manufactured by SD BIOSENSOR should be used for quality control testing. Control test should be conducted in accordance with the instructions of STANDARD C. difficile Toxin A/B Control.

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- Control test should be run:  
 - Once for each new lot.  
 - Once for each untrained operator.  
 - As required by test procedures in instructions for use of STANDARD C. difficile Toxin A/B Control and in accordance with local, state and federal regulations or accreditation requirements.

**EXPLANATION AND SUMMARY**

**■ Introduction**

*Clostridium difficile* infection (CDI) has significant clinical impact especially on the elderly and/or immunocompromised patients. The pathogenicity of *C. difficile* is mainly due to its ability to produce toxins A and B (ToxA and ToxB). Toxin A is mostly cytotoxic but induces large fluid shifts and mucosal inflammation. Toxin B is intensely cytotoxic but its role in the disease process is not clearly understood. Variant strains are known to be toxin A-negative. Toxin B-positive are known to be fully pathogenic, and capable of producing the full spectrum of disease. The prevalence of these variant strains varies widely by institution and geographic location. The clinical presentation of *C. difficile* infection includes, in increasing order of severity, range from mild, self-limited watery diarrhea to fulminant pseudomembranous colitis, toxic megacolon, and death. This pathogen is capable of causing disease that could be severe or fatal if not diagnosed on time and treated.

**■ Analysis of specimen**

**'STANDARD TEST' mode**

**STANDARD F100, F200 and F2400 analyzer**

- Prepare a STANDARD F Analyzer and select the 'Standard' mode according to the analyzer's manual.

**STANDARD F400**

**'Workplace' → 'Run Test' → Insert patient ID and / or operator ID on the analyzer**

**STANDARD F100 and**

**'Standard Test' mode → Insert patient ID and / or operator ID on the analyzer**

- Take the test device out of the foil pouch and place it on a flat and dry surface. Write patient information on the label of the test device.
- Insert the test device to the test slot of the analyzer. When inserting the test device to the analyzer, the analyzer will read the barcode data, and check the test device is valid. Select the sample type on the selection screen.

**KIT STORAGE AND STABILITY**  
Store the kit at 2-30°C / 36-86°F out of direct sunlight. Kit materials are stable until the expiration date printed on the outer box. Do not freeze the kit.

**WARNINGS AND PRECAUTIONS**

- STANDARD F C. difficile Toxin A/B FIA is for *in vitro* diagnostics use only.
- Carefully follow the instructions and procedures described in the instructions before testing.
- STANDARD F C. difficile Toxin A/B FIA should be with STANDARD F Analyzer.
- STANDARD F C. difficile Toxin A/B FIA should remain in its original sealed packaging until ready to use. Do not use if the pouch is damaged or the seal is broken.
- STANDARD F C. difficile Toxin A/B FIA is single use only. Do not re-use it.
- Do not use frozen sample or artificial materials.
- Place the analyzer on a flat surface when in use.
- Wash your hands in warm, soapy water. Rinse well and dry completely before testing.
- Discard the used test kit according to the proper method.
- Check the expiration date printed on the pouch or package.
- Use STANDARD F C. difficile Toxin A/B FIA at 15-32°C / 59-60°F.
- All kit components must be at room temperature 30 minutes before running the assay.
- Do not write on the barcode or damage the barcode of the test device.

**QUALITY CONTROL**

**■ Calibration**

The calibration set of STANDARD F Analyzers should be conducted according to the analyzers' manual.

**[When to use calibration set]**

- Before using the analyzer for the first time
- When you drop the analyzer
- Whenever you do not agree with your result
- When you want to check the performance of an analyzer and test device

**■ Collection of sample**  
The violet-line on the membrane of unused test device will disappear after use.

- Do not write on the barcode or damage the barcode of the test device.
- If the color of silica gel are changed from yellow to green, please do not use the test device.

**■ Preparation**  
Poke the 4 different areas of the fecal sample using the sterile swab to collect a portion of feces (about 40-70mg). In case of liquid sample, soak the sterile swab completely in the liquid fecal sample.

**■ Collection of sample**  
A sterile swab is used to collect fecal sample from a liquid sample.

**■ Preparation**

- Poke the 4 different areas of the fecal sample using the sterile swab to collect a portion of feces (about 40-70mg). In case of liquid sample, soak the sterile swab completely in the liquid fecal sample.

**■ Preparation**  
The violet-line on the membrane of the test device will disappear after use.

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