

# BLADE APPLICATOR KIT – 12, 18, & 20 SAMPLE PROCEDURE

## INTENDED USE

This procedure is intended to be used in conjunction with the appropriate SPIFE procedures provided in the gel kit. The Blade Applicators are designed to allow for easier application on the SPIFE 3000 system.

## MATERIALS

Applicator Blade Weights (Cat. No. 3387)

Blade Applicator Kit – 12 Sample

Blade Applicator Kit – 18 Sample

Blade Applicator Kit – 20 Sample

**Follow the steps under STEP-BY-STEP METHOD in the kit procedure. Use instructions below for Sample Application/Sample Preparation and Electrophoresis when using Blade Applicators.**

### SPIFE ImmunoFix (Pro. 199 & 200) &

### Ultra ImmunoFix (Pro. 126 & 127)

### Sample Application (SPIFE 3000)

#### • Serum or Urine (Blade Application)

1. The blades will not have a protective guard; skip the step referring to breaking off the guard and place the blade in the slots instructed.

**Note: The Applicator Blade will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blade into the slots.**

2. Place an Applicator Blade Weight on top of each blade assembly. When placing the weight on the blades, position the weight with the thick side to the right.

3. Pipette 20 µL of urine or diluted patient serum into the appropriate Sample Cups/ Disposable Cups.

**Use the following instructions for Electrophoresis Parameters when using these blades.**

#### Electrophoresis Parameters (SPIFE 3000)

#### • Urine or Urine and Serum (Blade Application)

**NOTE:** Serum and urine samples may be run on the same gel on different rows by pipetting 20 µL urine and 20 µL diluted serum into the cups. Change Step “5) No prompt” to “5) To Continue, (continue)”.

Place blades into the slots that correspond to the urine samples. After the second urine application, the machine will beep and stop. Add a blade into the remaining slot for serum samples. Press **TEST SELECT/CONTINUE**, the machine will apply and continue.

### SPIFE SPE (Pro. 128) & Split Beta (Pro. 137 & 138)

#### Sample Preparation (SPIFE 3000)

1. The blades will not have a protective guard; skip the step referring to breaking off the guard and place the blade in the slots instructed. If testing only serum samples, follow the instructions marked “**Serum**”. If testing serum with urine or CSF, follow instructions marked “**Serum and CSF or Urine**”. Serum application is made after the third urine or CSF application. Therefore the blade for serum application is not added until after the third urine/CSF application (step 7).

**Note: The Applicator Blade will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blade into the slots.**

2. Place an Applicator Blade Weight on top of each blade assembly. When placing the weight on the blades, position the weight with the thick side to the right.

3. Pipette 15 µL of control or serum or 20 µL of urine or CSF into **Disposable Sample Cups (Cat. No. 3369 for both)**. Cover until ready to use.

**Use the following instructions for Electrophoresis Parameters when using these blades.**

#### Electrophoresis (SPIFE 3000)

#### SPE (Pro. 128):

##### • Serum

1) No Prompt					
Load Sample 1	00:01	21°C	SPD1		
2) No Prompt					
Apply Sample 1	00:03	21°C	SPD1	LOC1	
3) No Prompt					
Electrophoresis 1	6:00	21°C	650V	135mA	

4) Remove gel blocks, (continue)					
Dry 1	*10:00	54°C			
5) No Prompt					
END OF TEST					
• Serum and CSF or Urine					
1) No Prompt					
Load Sample 1	00:30	21°C	SPD1		
2) No Prompt					
Apply Sample 1	00:30	21°C	SPD1	LOC1	
3) No Prompt					
Load Sample 2	00:30	21°C	SPD1		
4) No Prompt					
Apply Sample 2	00:30	21°C	SPD1	LOC1	
5) No Prompt					
Load Sample 3	00:30	21°C	SPD1		
6) No Prompt					
Apply Sample 3	00:30	21°C	SPD1	LOC1	
7) To Continue, (continue)					
Load Sample 4	00:01	21°C	SPD1		
8) No Prompt					
Apply Sample 4	00:03	21°C	SPD1	LOC1	
9) No Prompt					
Electrophoresis 1	6:00	21°C	650V	135mA	
10) Remove gel blocks, (continue)					
Dry 1	*10:00	54°C			
11) No Prompt					
END OF TEST					

#### Split Beta (Pro. 137):

**Note: Option 2 is not used with these blades.**

##### • Serum

1) No Prompt					
Load Sample 1	00:01	21°C	SPD1		
2) No Prompt					
Apply Sample 1	00:03	21°C	SPD1	LOC2	
3) No Prompt					
Electrophoresis 1	8:00	21°C	650V	130mA	
4) Remove gel blocks, (continue)					
Dry 1	*10:00	54°C			
5) No Prompt					
END OF TEST					
• Serum and CSF or Urine					
1) No Prompt					
Load Sample 1	00:30	21°C	SPD1		
2) No Prompt					
Apply Sample 1	00:30	21°C	SPD1	LOC2	
3) No Prompt					
Load Sample 2	00:30	21°C	SPD1		
4) No Prompt					
Apply Sample 2	00:30	21°C	SPD1	LOC2	
5) No Prompt					
Load Sample 3	00:30	21°C	SPD1		
6) No Prompt					
Apply Sample 3	00:30	21°C	SPD1	LOC2	
7) To Continue, (continue)					
Load Sample 4	00:01	21°C	SPD1		
8) No Prompt					
Apply Sample 4	00:03	21°C	SPD1	LOC2	
9) No Prompt					
Electrophoresis 1	8:00	21°C	650V	130mA	
10) Remove gel blocks, (continue)					
Dry 1	10:00	54°C			
11) No Prompt					
END OF TEST					

#### Split Beta (Pro. 138)

**Note: Option 2 is not used with these blades.**

##### • Serum

1) No Prompt					
Load Sample 1	00:01	21°C	SPD1		

- 2) No Prompt  
Apply Sample 1 00:03 21°C SPD1 LOC1
- 3) No Prompt  
Electrophoresis 1 6:00 21°C 650V 130mA
- 4) Remove gel blocks, (continue)  
Dry 1 \*10:00 54°C
- 5) No Prompt  
END OF TEST
- **Serum and CSF or Urine**
- 1) No Prompt  
Load Sample 1 00:30 21°C SPD1
- 2) No Prompt  
Apply Sample 1 00:30 21°C SPD1 LOC1
- 3) No Prompt  
Load Sample 2 00:30 21°C SPD1
- 4) No Prompt  
Apply Sample 2 00:30 21°C SPD1 LOC1
- 5) No Prompt  
Load Sample 3 00:30 21°C SPD1
- 6) No Prompt  
Apply Sample 3 00:30 21°C SPD1 LOC1
- 7) To Continue, (continue)  
Load Sample 4 00:01 21°C SPD1
- 8) No Prompt  
Apply Sample 4 00:03 21°C SPD1 LOC1
- 9) No Prompt  
Electrophoresis 1 6:00 21°C 650V 130mA
- 10) Remove gel blocks, (continue)  
Dry 1 10:00 54°C
- 11) No Prompt  
END OF TEST

### SPIFE Acid Hemoglobin (Pro. 176) and Alkaline

#### Hemoglobin (Pro. 170)

**Note: The following steps are the only changes needed for these blades. Continue following the appropriate procedure provided in the gel kit.**

#### Sample Preparation (SPIFE 3000)

1. The blades will not have a protective guard; skip the step referring to breaking off the guard and place the blade in the slots instructed.  
**Note: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blades into the slots.**
2. Place an Applicator Blade Weight on top of each blade assembly. When placing the weight on the blades, position the weight with the thick side to the right.

#### SPIFE Hi Res-20 (Pro. 203)

**NOTE: The following steps are the only changes needed for these blades. Continue following the appropriate procedure provided in the gel kit.**

#### Sample Preparation

No. of Applications	Serum	Urine	CSF	Hi Res Marker
1	1:2 with saline	neat, diluted or concentrated	_____	neat
3	_____	neat, diluted or concentrated	10-50x saline	1:3 with

#### 1. Serum

Dilute each serum sample 1:2 with 0.85% saline solution (1 part serum and 1 part 0.85% saline solution). The Hi Res Marker should be run neat. Only one application is used.

#### 2. Urine

Urine samples may be run neat, diluted or concentrated as described in Specimen Preparation. One application of urine can be run on the same gel with serum samples. If one application of urine is used, the marker should be run neat.

However, if three applications of urine are used, the marker should be diluted 1:3 with saline. Three applications of urine cannot be run with the serum specimens.

#### 3. CSF

CSF samples should be concentrated 10-50x. The marker should be diluted 1:3 with saline. Three applications of CSF are needed and cannot be run with serum specimens.

### Instrument Setup

1. The blades will not have a protective guard; skip the step referring to breaking off the guard and place the blade in the slots instructed.  
**NOTE: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blade into the slots.**
2. Place an Applicator Blade Weight on top of each blade assembly. When placing the weight on the blades, position the weight with the thick side to the right.

### SPIFE LD Isoenzyme (Pro. 89)

**Use the following instructions for "II. Sample Preparation" when using these blades.**

#### Sample Preparation

1. Following Step 1, skip the step referring to breaking off the guard and place the blade in the slots instructed in Step 2.  
**Note: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blades into the slots.**
2. After Step 2, place an Applicator Blade Weight on top of each Applicator Blade. When placing the weight on the blades, position the weight with the thick side to the right. Continue following the instructions under Sample Preparation in the original procedure.

**Use the following instructions for Electrophoresis Parameters when using these blades.**

#### Electrophoresis (SPIFE 3000)

- 1) No Prompt  
Load Sample 1 00:02 20°C SPD6
- 2) No Prompt  
Load Sample 2 00:02 20°C SPD6
- 3) No Prompt  
Load Sample 3 00:02 20°C SPD6
- 4) No Prompt  
Load Sample 4 00:30 20°C SPD6
- 5) No Prompt  
Apply Sample 1 00:30 20°C SPD6 LOC1
- 6) No Prompt  
Electrophoresis 1 6:00 10°C 600 Volt 100 mA
- 7) No Prompt  
Apply Reagent 1 45°C 4 cycles
- 8) To Continue, (Continue)  
Incubate 1 20:00 45°C
- 9) No Prompt  
END OF TEST

### SPIFE Lipoprotein (Pro. 108)

**Use the following instructions for "I. Sample Preparation" when using these blades.**

#### Sample Preparation

1. Following Step 1, skip the step referring to breaking off the guard and place the blade in the slots instructed in Step 2.  
**Note: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blades into the slots.**
2. After Step 2, place an Applicator Blade Weight on top of each Applicator Blade. When placing the weight on the blades, position the weight with the thick side to the right. Continue following the instructions under Sample Preparation in the original procedure.

**Use the following instructions for Electrophoresis Parameters when using these blades.**

#### Electrophoresis (SPIFE 3000)

- 1) No Prompt  
Load Sample 1 00:02 20°C SPD6
- 2) No Prompt  
Load Sample 2 00:02 20°C SPD6
- 3) No Prompt  
Load Sample 3 00:02 20°C SPD6
- 4) No Prompt  
Load Sample 4 00:30 20°C SPD6
- 5) No Prompt  
Apply Sample 1 1:00 20°C SPD6 LOC1
- 6) No Prompt  
Electrophoresis 1 20:00 16°C 400 Volt 150 mA
- 7) Remove gel blocks (continue)  
Dry 1 8:00 54°C
- 8) No prompt  
END OF TEST

**SPIFE CK Vis Isoenzyme (Pro. 99)**

Use the following instructions for "I. Sample Preparation" when using these blades.

**Sample Preparation**

- Following Step 1, skip the step referring to breaking off the guard and place the blade in the slots instructed in Step 3.

**Note: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blades into the slots.**

- At Step 4, when placing the weight on the blades, position the weight with the thick side to the right.
- At Step 6, pipette 75-80 µL of pretreated control or serum into Disposable Sample Cups (Cat. No. 3360).

**Use the following instructions for Electrophoresis Parameters when using these blades.**

**Electrophoresis (SPIFE 3000)**

- |                                 |       |      |          |      |  |
|---------------------------------|-------|------|----------|------|--|
| 1) No Prompt                    |       |      |          |      |  |
| Load Sample 1                   | 00:02 | 21°C | SPD6     |      |  |
| 2) No Prompt                    |       |      |          |      |  |
| Load Sample 2                   | 00:02 | 21°C | SPD6     |      |  |
| 3) No Prompt                    |       |      |          |      |  |
| Load Sample 3                   | 00:02 | 21°C | SPD6     |      |  |
| 4) No Prompt                    |       |      |          |      |  |
| Load Sample 4                   | 00:30 | 21°C | SPD6     |      |  |
| 5) No Prompt                    |       |      |          |      |  |
| Apply Sample 1                  | 1:00  | 21°C | SPD6     | LOC1 |  |
| 6) No Prompt                    |       |      |          |      |  |
| Load Sample 5                   | 00:30 | 21°C | SPD6     |      |  |
| 7) No Prompt                    |       |      |          |      |  |
| Apply Sample 2                  | 1:00  | 21°C | SPD6     | LOC1 |  |
| 8) No Prompt                    |       |      |          |      |  |
| Electrophoresis 1               | 4:30  | 13°C | 750 Volt | 65mA |  |
| 9) Remove gel blocks (Continue) |       |      |          |      |  |
| Apply Reagent 1                 |       | 37°C | 8 cycles |      |  |
| 10) No Prompt                   |       |      |          |      |  |
| Incubate 1                      | 20:00 | 45°C |          |      |  |
| 11) No Prompt                   |       |      |          |      |  |
| END OF TEST                     |       |      |          |      |  |

**SPIFE Vis Cholesterol (Pro. 185)**

Use the following instructions for "II. Sample Preparation" when using these blades.

**Sample Preparation**

- Following Step 1, skip the step referring to breaking off the guard and place the blade in the slots instructed in Step 2.

**Note: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blades into the slots.**

- After Step 2, place an Applicator Blade Weight on top of each Applicator Blade. When placing the weight on the blades, position the weight with the thick side to the right. Continue following the instructions under Sample Preparation in the original procedure.

**Use the following instructions for Electrophoresis Parameters when using these blades.**

**Electrophoresis (SPIFE 3000)**

- |                               |       |      |          |       |  |
|-------------------------------|-------|------|----------|-------|--|
| 1) No Prompt                  |       |      |          |       |  |
| Load Sample 1                 | 00:02 | 20°C | SPD6     |       |  |
| 2) No Prompt                  |       |      |          |       |  |
| Load Sample 2                 | 00:02 | 20°C | SPD6     |       |  |
| 3) No Prompt                  |       |      |          |       |  |
| Load Sample 3                 | 00:02 | 20°C | SPD6     |       |  |
| 4) No Prompt                  |       |      |          |       |  |
| Load Sample 4                 | 00:30 | 20°C | SPD6     |       |  |
| 5) No Prompt                  |       |      |          |       |  |
| Apply Sample 1                | 1:00  | 20°C | SPD6     | LOC1  |  |
| 6) No Prompt                  |       |      |          |       |  |
| Electrophoresis 1             | 20:00 | 16°C | 400 V    | 150mA |  |
| 7) Remove blotter, (continue) |       |      |          |       |  |
| Apply Reagent 1               |       | 30°C | 8 cycles |       |  |
| 8) No Prompt                  |       |      |          |       |  |
| Incubate 1                    | 15:00 | 30°C |          |       |  |
| 9) No prompt                  |       |      |          |       |  |
| END OF TEST                   |       |      |          |       |  |

**SPIFE Alkaline Phosphatase (ALP) Isoenzyme (Pro. 202)**

Use the following instructions for "III. Sample Preparation" when using these blades.

**Sample Preparation**

- Following Step 1, skip the step referring to breaking off the guard and place the blade in the slots instructed in Step 2.

**Note: The Applicator Blades will only fit into the slots in the Applicator Assembly one way; do not try to force the Applicator Blades into the slots.**

- After Step 2, place an Applicator Blade Weight on top of each Applicator Blade. When placing the weight on the blades, position the weight with the thick side to the right. Continue following the instructions under Sample Preparation in the original procedure.

**Use the following instructions for Electrophoresis Parameters when using these blades.**

**Electrophoresis (SPIFE 3000)**

- |                                  |         |      |           |      |  |
|----------------------------------|---------|------|-----------|------|--|
| 1) No Prompt                     |         |      |           |      |  |
| Load Sample 1                    | 00:02   | 20°C | SPD6      |      |  |
| 2) No Prompt                     |         |      |           |      |  |
| Load Sample 2                    | 00:02   | 20°C | SPD6      |      |  |
| 3) No Prompt                     |         |      |           |      |  |
| Load Sample 3                    | 00:02   | 20°C | SPD6      |      |  |
| 4) No Prompt                     |         |      |           |      |  |
| Load Sample 4                    | 00:30   | 20°C | SPD6      |      |  |
| 5) No Prompt                     |         |      |           |      |  |
| Apply Sample 1                   | 1:00    | 20°C | SPD6      | LOC1 |  |
| 6) No Prompt                     |         |      |           |      |  |
| Load Sample 5                    | 00:30   | 20°C | SPD6      |      |  |
| 7) No Prompt                     |         |      |           |      |  |
| Apply Sample 2                   | 1:00    | 20°C | SPD6      | LOC1 |  |
| 8) No Prompt                     |         |      |           |      |  |
| Load Sample 6                    | 00:30   | 20°C | SPD6      |      |  |
| 9) No Prompt                     |         |      |           |      |  |
| Apply Sample 3                   | 1:00    | 20°C | SPD6      | LOC1 |  |
| 10) To Continue, (Continue)      |         |      |           |      |  |
| Electrophoresis 1                | **27:00 | 12°C | 430 Volt  | 75mA |  |
| 11) Remove gel blocks (continue) |         |      |           |      |  |
| Apply Reagent 1                  |         | 45°C | 10 cycles |      |  |
| 12) No Prompt                    |         |      |           |      |  |
| Incubate 1                       | 28:00   | 45°C |           |      |  |
| 13) No Prompt                    |         |      |           |      |  |
| End of test                      |         |      |           |      |  |

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