

# CrossCheck

## Phosphatase Test

Part No. CX-3000 (100 tests)



### Description/ Intended Use:

CrossCheck is a rapid bioluminogenic test for determination of residual Phosphatase activity with results in less than 5 minutes. Phosphatase enzymes are a natural component of raw meat and fish that can also harbor several types of pathogenic food poisoning bacteria. Proper cooking destroys both phosphatase activity and bacteria. Therefore, phosphatase activity is an indicator of hazards associated with raw meat residues in areas where food is prepared and served, and a measure of cooking effectiveness.

CrossCheck may be used for:

1. Monitoring cleanliness of surfaces that may have contacted raw meat and assessing potential risk from cross-contamination.
2. Measuring phosphatase activity levels in cooked meats to verify cooking effectiveness.

### Principle:

CrossCheck consists of a self-contained collection and test device containing chemiluminescent reagents. A specific substrate in the reagent is broken down by phosphatase enzyme in a sample, initiating a light reaction. The amount of light generated is directly proportional to the amount of phosphatase present in the sample. CrossCheck is very sensitive and can detect small residues (0.1% or less) of raw meat and fish in 2 – 5 minutes.

### Required Materials (Available from Hygiena):

- Incubator set at 37 ± 1 °C (optional for Optimum Test Procedure)
- Hygiena luminometer
  - SystemSURE Plus (Part No. SS3) or
  - EnSURE (Part No. ENSURE)

### Directions:

#### Optimum Test Procedure:

1. Allow CrossCheck device to equilibrate to room temperature (21 – 25 °C) for 10 minutes. Shake test device by tapping on palm of your hand 5 times to bring droplets of solution to bottom of tube.
2. Twist and pull top of swab out of swab tube. Thoroughly swab a standard 10 x 10 cm (4 x 4 inches) area for a typical flat surface. Swab tip is pre-moistened for maximum sample collection. For irregular surfaces, ensure swabbing technique remains consistent for each test and swab a large enough area to collect a representative sample.
3. After swabbing, replace swab back in swab tube.
4. Shake tube gently to mix sample with solution in tube.
5. Activate device by bending bulb forward and backward to break Snap-Valve. Squeeze bulb twice to release reagent into tube.
6. Incubate for 5 minutes ± 10 seconds at 37 ± 1 °C. During incubation time, turn on luminometer. If luminometer has been programmed, select appropriate program number.
7. Shake device for 5 second to mix sample and reagent.
8. Immediately place entire device into luminometer and press "OK" to initiate measurement. Results will be displayed in 15 seconds. Measure test device only once.

#### Interpretation of Results for Optimum Test Procedure:

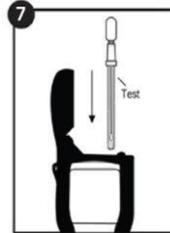
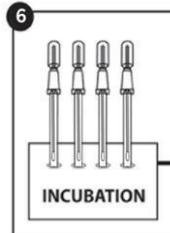
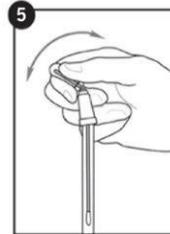
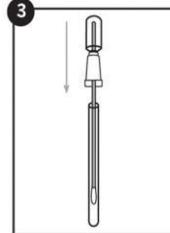
Results are displayed as RLU (relative light units).

Table 1: Pass/Fail Limits for Optimum Test Procedure

Luminometer	Pass RLU (Negative)	Fail RLU (Pass)
SystemSURE Plus	0-3	3+
EnSURE	0-3	3+

Table 2: % Chicken Detection Limits for Optimum Test Procedure

% Chicken	EnSURE RLU	SystemSURE RLU	Interpretation
10%	1467	734	Positive
1%	146	73	Positive
0.10%	15	8	Positive
0.01%	1	1	Negative
0%	0	0	Negative



### Quick Test Procedure:

1. Allow CrossCheck device to equilibrate to room temperature (21 – 25 °C) for 10 minutes. Shake test device by tapping on palm of your hand 5 times to bring droplets of solution to bottom of tube.
2. Twist and pull top of swab out of swab tube. Thoroughly swab a standard 10 x 10 cm (4 x 4 inches) area for a typical flat surface. Swab tip is pre-moistened for maximum sample collection. For irregular surfaces, ensure swabbing technique remains consistent for each test and swab a large enough area to collect a representative sample.
3. After swabbing, replace swab back in swab tube.
4. Shake tube gently to mix sample with solution in tube.
5. Activate device by bending bulb forward and backward to break Snap-Valve. Squeeze bulb twice to release reagent into tube.
6. Store upright at room temperature (21 - 25 °C) for 2 minutes. During this time, turn on luminometer. If luminometer has been programmed, select appropriate program number.
7. Shake device for 5 second to mix sample and reagent.
8. Immediately place entire device into luminometer and press "OK" to initiate measurement. Results will be displayed in 15 seconds. Measure test device only once.

### Interpretation of Results for Quick Test Procedure:

Results are displayed as RLU (relative light units).

Table 3: Pass/Fail Limits for Quick Test Procedure

Luminometer	Pass RLU (Negative)	Fail RLU (Pass)
SystemSURE Plus	0-3	3+
EnSURE	0-3	3+

Table 4: % Chicken Detection Limits for Quick Test Procedure

% Chicken	EnSURE RLU	SystemSURE RLU	Interpretation
10%	116	58	Positive
1%	21	11	Positive
0.10%	1	1	Negative
0.01%	0	0	Negative
0%	0	0	Negative

### Calibration Control:

It is advisable to run positive and negative controls according to Good Laboratory Practices. Hygiena offers the following instrument control:

- (Part # PCD4000) Calibration Control Kit for Hygiena luminometers

### Storage & Shelf Life:

- Store at 2 – 8 °C (36 – 46 °F)
- Store CrossCheck devices out of direct sunlight.
- Devices have a 12-month shelf life. Refer to expiration date on label.

### Disposal:

CrossCheck devices should be disposed of in compliance with Good Laboratory Practice and local Health and Safety regulations.

### Safety & Precautions:

Components of CrossCheck do not pose any health risk when used in accordance with standard laboratory practice and procedures of this insert.

- CrossCheck test devices are for one-time use. Do not reuse.
- For further safety instruction, refer to Safety Data Sheet (SDS).

### Hygiena Liability:

Hygiena will not be liable to user or others for any loss or damage whether direct or indirect, incidental or consequential from use of this device. If this product is proven to be defective, Hygiena's sole obligation will be to replace product or at its discretion, refund the purchase price. Promptly notify Hygiena within 5 days of discovery of any suspected defect and return product to Hygiena. Please contact Customer Service for a Returned Goods authorization number.

### Contact Information:

If more information is required, please visit us at [www.hygiena.com](http://www.hygiena.com) or contact us at:

Hygiena – Americas  
Phone: 805.388.8007  
Email: [info@hygiena.com](mailto:info@hygiena.com)

Hygiena - International  
Phone: +44 (0)1923 818821  
Email: [enquiries@hygiena.com](mailto:enquiries@hygiena.com)