# Agitest<sup>™</sup> Food Allergen Rapid Test Strip Instruction Manual – SOY

# 1. Brief Information

Agitest<sup>™</sup> Food Allergen Rapid Test - SOY is an immunochromatographic test for the detection of soy in food. All reagents required for the test are included in the test kit. Results are interpreted visually. The kit is intended to detect soy protein presence in foods. Agitest<sup>™</sup> SOY Food Allergen Rapid Test can be used with Agitest<sup>™</sup> Environmental Swab Kit (Product Number: SR00013220) for the detection of soy on working surface thus a appropriate qualitative tool for food allergens in environmental cleaning.

# \*Detection limits:

- 0.2 ppm soy protein isolate

- Soy in wheat flour: 2 mg/kg soy protein (may vary with different matrix)

- 4 μg soy protein isolate per 100 cm<sup>2</sup> of sampling area \*Detection ranges:

Raw soybean powder: 1 ppm-10,000 ppm

Soy milk: 1 ppm-100,000 ppm

# \*Specificity:

Cross-reaction with kidney bean (*Phaseolus coccineus*). No cross-reaction with almond, buckwheat, egg, casein and peanut.

Other cross-reaction results are described in the validation report.

# 2. Reagents provided

Ead	h tes	t kit contains		
2.1	Ra	pid test strip	20 pouches	
2.2	Bu	ffer A	35 mL, 1 bottle	
2.3	Bu	ffer B	12 mL, 1 bottle	
2.4	Ins	truction manual	1 manual	
2.5	Su	oplies:		
2.5.1		1.5 mL Microcentrifuge tube		20 pcs
	2.5.2	4 mL Sample tube		20 pcs
2.5.3		S Spoon		20 pcs
	2.5.4	Dropper		20 pcs
	2.5.5	5 Tubes rack		2 pcs

# 3. Equipment/ materials required (Not provided)

- 3.1  $20 200 \ \mu L$  and 1,000  $\mu L$  micropipette.
- 3.2 Accurate weighing scale.
- 3.3 Grinder or homogenizer.
- 3.4 Timer.
- 3.5 Vortex mixer (if available).
- Agitest<sup>™</sup> Environmental Swab Kit (Product Number: SR00013220) (20 pieces).
- 3.7 Clean water.

# 4. Storage instructions

4.1 Store the test kit between 2 to 30 degrees Celsius.

- 4.2 Keep away from direct sunlight.
- 4.3 Do not freeze.

# 5. Warnings and precautions for users

- 5.1 Agitest<sup>™</sup> SOY Food Allergen Rapid Tests can be used for the qualitative detection of soya proteins in food. A negative result does not necessarily indicate the absence of soya. LOD might vary depending on food matrix.
- 5.2 Agitest<sup>™</sup> products are for food testing and *In Vitro* diagnostic use only, not for human use.
- 5.3 Agitest<sup>™</sup> products contain non-toxic buffers. To maintain test accuracy, please keep bottle upright to prevent leakage.
- 5.4 Agitest<sup>™</sup> Rapid Tests are designed as a one-use test. Please do not re-use test strip.
- 5.5 Agitest<sup>™</sup> Rapid Tests are very sensitive to humidity, which could render the test strips useless. Please keep the test strips away from humidity.
- 5.6 Agitest<sup>™</sup> Rapid Tests are designed for screening purposes only. If analysis of ingredients is required, please send the sample to your local laboratory for further analysis.
- 5.7 To ensure test accuracy, please do not use expired test strips or omit the following steps include weighing samples or operating by micropipette.
- 5.8 Airborne soy powder and dirty equipment can lead to soy contamination of the test strip and affect the results. In order to avoid cross-contamination during the operation, please clean equipment and surfaces with 75% ethanol before operating and wear gloves while performing the test to ensure detection accuracy.
- 5.9 All samples require dilution with the buffer in this kit. Do not test the sample directly with the test strip.
- 5.10 Food samples containing high level of polyphenols (e.g. coffee, tea, wine, chocolate etc.), high fat volume (e.g. peanut butter, oil etc.) or heavy food coloring (e.g. soya sauce) will affect the results of the tests.
- 5.11 If the sample is highly concentrated or too viscous, please further dilute samples with **buffer B** in this kit before testing.
- 5.12 Please complete the following test procedure in 30 minutes.

# 6. Preparation of samples

- 6.1 For liquid food/ drinks:
  - Add 50  $\mu\text{L}$  of sample into 450  $\mu\text{L}$  buffer B in a 1.5 mL microcentrifuge tube and mix well.

#### 6.2 For solid food:

- 6.2.1 Grind sample finely and weigh 0.3 g into sample tube.
- 6.2.2 Add 1.5 mL buffer A into the sample tube.
- 6.2.3 Vortex/ Mix for 30 seconds.
- 6.2.4 Leave sample mixture to settle for 2 minutes.
- 6.2.5 Pipette 250 μL sample mixture supernatant and 250 μL **buffer B** into a 1.5 mL microcentrifuge tube.
- 6.2.6 Shake/ Mix for 10 seconds.
- 6.3 Environmental swab test:
  - 6.3.1 Transfer 500 μL (or 15 drops by dropper) of **buffer B** into a 1.5 mL microcentrifuge tube.
  - 6.3.2 Take out a cotton swab from Agitest™ Environmental Swab Kit and immerse the cotton end into clean water.
  - 6.3.3 Swab a sampling area of 10 X 10 cm (100 cm<sup>2</sup>) thoroughly.
  - 6.3.4 Dip the cotton swab into the 1.5 mL microcentrifuge tube. Make sure the cotton end is fully immersed in the buffer.
  - 6.3.5 Gently agitate the cotton swab in the buffer for 30 seconds. (Please avoid spilling the buffer.)
  - 6.3.6 Remove the cotton swab and leave the tube to rest for 1 minute.

#### 7. Test implementation

- 7.1 Open the alu-pouch and take out the test strip. (Please handle the colored sticker portion only and avoid contact with the reaction zone).
- 7.2 Insert the test strip into the 1.5 mL microcentrifuge tube.



\*\*Note: Do not allow liquid height to exceed the arrows\*\*

\*\*Wait 15 minutes for the results. Please read the results immediately without further manipulation.

### 8. Results and interpretation

#### 8.1 Result analysis

- 8.1.1 **Positive result: two colored bands** (the C and T red test bands) are visible within the reaction zone.
- 8.1.2 Negative result: one colored band (the C red

- test band) is visible within the reaction zone.
- 8.1.3 Invalid result: if C band is invisible within the reaction zone, the test is considered invalid.
  \*Please check the following:
  - A. If the test strip packaging is damaged.
  - B. If the test strip is damp.
  - C. If the sample is too viscous or concentrated. Please retest with a new test strip.



\*NOTE:

- Please read test results within 30 minutes to ensure optimum accuracy.
- "Hook effect": Highly concentrated samples overload the test strip and weak band(s) will be observed.

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# A. Materials Needed:

	Liquid Sample	Solid Sample	Environmental Swab Test
4 mL Sample Tube		•	
1.5 mL Microcentrifuge Tube	•	•	•
Pipetmans or Droppers	•	•	•
Scoop		•	
Swab (Optional)			•

# B. Preparation of Samples



# C. Strip Testing and Result Analysis

