

Amino Acid Nitrogen Test Kit

Catalog No: E-IA-C006

100T

Version Number: V1.0
Replace version: /
Revision Date: 2026.05.20

This manual must be read attentively and completely before using this product.

If you have any problems, please contact our Technical Service Center for help.

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017

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Please kindly provide us the lot number (on the outside of the box) of the kit for more efficient service.

Test principle

This product is used for the rapid detection of Amino Acid Nitrogen in Soy sauce sample, featuring simple operation and short detection time.

Kits components

Item	Specifications
Detection Solution A	1 vial
Detection Solution B	2 vials
Detection Solution C	2 vials
Detection Solution D	1 vial
10 mL Test Tube	5 pieces
Disposable Dropper	1 pack
60 mL Sample Cup	1 piece
Manual	1 copy

Note: All reagent bottle caps must be tightened to prevent evaporation and microbial pollution.

Other materials required but not supplied

Instruments: Homogenizer, Nitrogen Evaporators, Water bath, Centrifuge, Graduated pipette, Balance (sensitivity 0.01g), Oscillators, EP tubes.

Micropipette: Single channel (20-200 μ L, 100-1000 μ L)

Notes

1. FOR RESEARCH USE ONLY. Do not use product out of date.
2. Drinking water shall not be used as diluent for determination. Distilled water or purified water (commercially available refined purified water) is recommended.
3. The test tubes can be reused after rinsing and air-drying.
4. Shake the detection solution well before use and add dropwise, store away from light at all times.
5. The test solution is corrosive. Avoid contact with skin and mucous membranes. In case of eye contact, immediately rinse with plenty of clean water.
6. **Each reagent is optimized for use in the E-IA-C006. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-IA-C006 with different lot numbers.**
7. Dispose of solid and liquid waste generated after using this product in accordance with local regulatory requirements to prevent contamination.
8. This method is applicable to on-site rapid testing. Samples whose test results do not comply with standard limits or labeled values shall be measured in triplicate.
9. The kit is used for rapid screening of actual samples. If the test result is positive, the instrument method such as HPLC, LC/MS, etc. can be used for quantitative confirmation.

Storage and expiry date

Storage: Store at 2-30°C. With cool and dry environment.

Expiry date: expiration date is on the packing box.

Operating Procedures

1. Pipette 1.00±0.05 mL Soy sauce sample into a **10 mL Test Tube**, add distilled water up to the 10 mL scale mark, cap tightly and mix well until fully dissolved to obtain the sample solution.
2. Pipette 0.5 mL of the sample solution (step 1) into a self-provided 100 mL Erlenmeyer flask, add 40 mL distilled water and mix fully. Add 3 drops of **Detection Solution A**, shake well, then add **Detection Solution B** vertically dropwise. Shake the solution after each drop addition. Titrate until pink or reddish-brown color appears and remains stable for 20 s after shaking, then record the consumed drops.
3. Take another 0.5 mL sample solution (step 1) into a separate self-provided 100 mL Erlenmeyer flask, add 40 mL distilled water and 2 mL **Detection Solution C**, mix thoroughly. Add 3 drops of **Detection Solution D** and mix fully. Add **Detection Solution B** vertically dropwise with shaking after each drop. Titrate until pale green color develops and keeps unchanged within 20 s after shaking, and record the number of drops used.

Judgment of result

1. The content is calculated based on the drop difference of test solution consumed by the sample solution via the two titration methods, with each drop equivalent to 0.07% amino nitrogen.
2. Samples are deemed qualified if the drop difference exceeds 11 drops for super grade soy sauce, 10 drops for first grade and 8 drops for second grade respectively.

For example, if the two tests consume 3 drops and 13 drops of test solution respectively, the difference is 10 drops (13 drops-3 drops=10 drops). The amino nitrogen content of the sample is calculated as $10 \times 0.07\% = 0.70\%$, which meets the qualification standard for first grade soy sauce.