KYORITSU **PACKTEST** INSTRUCTIONS

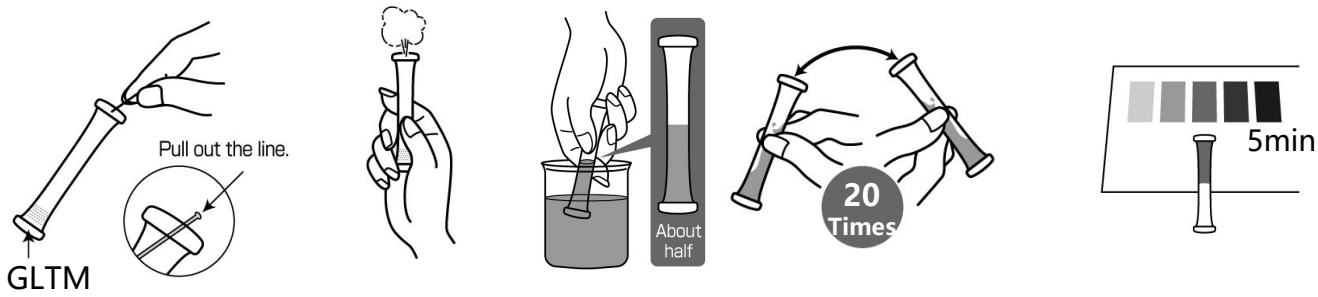
Glutamate

4-Aminoantipyrine Visual Colorimetric Method with Enzyme

Measuring Range: 1 - ≥50 mg/L (ppm)

Model: WAK-GLTM

How to Use



① Remove the colored line at the top of the tube to clear the aperture.

② Press the tube's side wall to expel air and hold the tube.

③ Immerse the aperture of the tube into the sample, release the finger to fill up the tube halfway. Invert the tube back and forth lightly for 20 times.

④ After 5min, place the tube on the provided Standard Color as shown to compare the color.

How to Read the Result

After the reaction time, compare the color of the tube with Standard Color. The nearest color indicates the concentration value of the analyte in your sample. A color between two standard colors indicate the value between them.

Handling of PACKTEST Before and After Use

First Aid

Eye Contact → Immediately flush eyes with plenty of water.
Skin/Cloth Contact → Immediately flush contacted area with water.
Ingestion → Immediately rinse mouth.

If swallowed the content or any symptom appears, seek medical advice immediately.
Please refer to SDS for further information.

Storage

Use PACKTEST tubes as soon as possible after opening the laminated package.
The reagent is relatively heat-sensitive. Be careful of high temperature above 30℃ and high humidity.
When exposed to high temperature (above 35°C) for a long time, color development becomes weak.

Disposal

For business use, please follow in the manner consistent with relevant laws and regulations.
Otherwise, the tube can be disposed as combustible waste.

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Caution

1. The optimum pH upon reaction will be around 7. If the pH of the sample exceeds 4-10, please neutralize with dilute sodium hydroxide solution or dilute sulfuric acid prior to measurement.
2. Keep the sample temperature between 20-30℃. If the sample temperature is below 20℃, it requires longer reaction time.
3. Ensure that the PACKTEST tube is filled up to half.
4. Partially undissolved reagent will not affect the measurement.
5. When comparing to the Standard Color, please be sure to read under the daylight. It may be difficult to determine the color under the direct sunlight, certain florescent lights, mercury lamp or LED.
6. You can put the line back into the aperture to seal. This will avoid possibility of spilling the content of the tube.

Interference

Standard Color is prepared based on the standard solution. If there are some coexisting substances that may cause interference, please compare the result with official method or standard addition method for verification. Below is the list of interference data for on color development when adding each of the single substances to the standard solution.

≤1000mg/L	will not affect	⋯ B(III), Cl^-, F^-, I^-, K^+, Mg^{2+}, Na^+, NH_4^+, NO_3^-, PO_4^{3-}, SO_4^{2-}, Zn^{2+}, Anionic Surfactant, Non-ionic Surfactant, Inosinic acid, Guanylic acid, Citric Acid, Glucose, Silica, Tartaric Acid, Sucrose, Starch
≤500mg/L	〃	⋯ Ca^{2+}, NO_2^-, Succinic acid
≤200mg/L	〃	⋯ Al^{3+}, Phenol
≤100mg/L	〃	⋯ Cu^{2+}
≤20mg/L	〃	⋯ Fe^{3+}, Mn^{2+}, Cationic Surfactant
≤5mg/L	〃	⋯ Fe^{2+}
≤1mg/L	〃	⋯ Ascorbic Acid
≤0.5mg/L	〃	⋯ Residual Chlorine, Ethyl gallate
≤0.2mg/L	〃	⋯ Ag^+
0.1mg/L	will affect	⋯ Hydrogen Peroxide

Seawater cannot be measured directly. To measure seawater, it must be diluted at least twice.
Ethanol under 10% (w/w) will not affect the result.
Oxidizing substances may cause positive false reading.
Reducing substances may weaken the color development.

Effect of various L-amino acids

≤1000mg/L	will not affect	⋯ Asparagine, Arginine, Isoleucine, Glycine, Serine, Tyrosine, Tryptophan, Threonine, Valine, Histidine, Phenylalanine, Proline, Methionine, Lysine, Leucine
≤500mg/L	〃	⋯ Alanine, Glutamine
≤100mg/L	〃	⋯ Aspartic Acid
≤2mg/L	〃	⋯ Cysteine

【Caution】

- This product is made for analyzing water quality purpose only. Do not use for any other purpose.
- This product contains small amount of chemicals. Please read instruction manual, GHS labels, SDS, and other necessary document thoroughly prior to use.
- Please keep this information handy for future reference.

<Safety>
- Please wash your hands thoroughly before and after the test. Do not inhale the chemical reagents.
- It is highly recommended to wear protective gloves, eye protection, and mask upon using this product.
- Avoid release chemical reagents or waste solution to the environment.

<Storage>
- Please keep this product out of reach of children. Keep it in the dry and dark place at room temperature.

<Other>
- Please check the expiration date shown on the box, and make sure to use within the date.
- Specifications are subject to change without notice.

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