



KYORITSU

PACKTEST

INSTRUCTIONS

Vitamin C (L-Ascorbic Acid)

Model WAK-VC-2

GHS



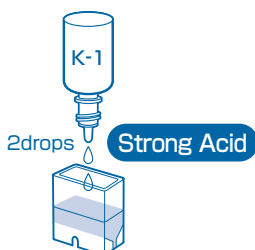
Danger

Folin-Denis Visual Colorimetric Method

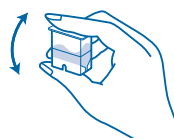
Main reagent: Phenol Reagent

Range: Vitamin C 0.1 - \geq 4 mg/100mLL-Ascorbic Acid 1 - \geq 40 mg/L(ppm)

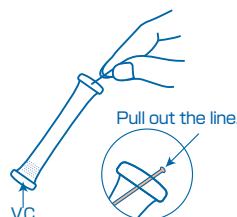
How to Use



① Fill the Cell (PACK TEST Square Cup) up to the line (1.5mL) with sample. Add 2 drops of K-1 reagent.



② Place the cap and shake the Cell 2-3 times.

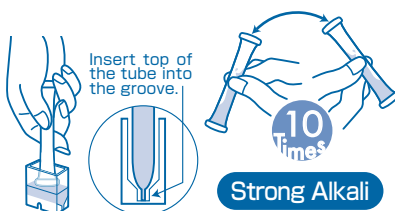


③ Remove the colored line at the top of the tube to clear the aperture.

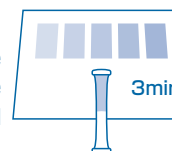


④ Press tube's side wall to expel air, and hold the tube.

⑤ Immerse the aperture of the tube into the Cell, pressing it against the bottom, and release to take all the sample from the Cell into the tube. Invert the tube back and forth for 10 times.



⑥ After 3min, compare the actual color in the tube with provided Standard Color.



How to Read the Test

- 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 indicates the value between them.
- One side of the Standard Color is for Vitamin C (mg/100mL) and the other side is for L-Ascorbic Acid (mg/L). Please use according to your intended use.

Handling of PACKTEST Before and After Use

The content of K-1 Reagent is **Strong Acid**.

The content of the tube is **Strong Alkali**. Hazardous when contacting with eyes.

First Aid **Eye contact** → Immediately flush eyes with water for at least 15 minutes, followed by consult with Ophthalmologist.

Skin contact → Immediately flush contacted area with water.

Ingestion → Immediately rinse mouth.

If ingesting 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.

Disposal For business use, please follow in a manner consistent with Federal, State, and Local Regulations. Otherwise, the tube and bottle can be disposed as combustible waste.

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PACKTEST Vitamin C (L-Ascorbic Acid)

Feature

This product uses Folin-Denis Reagent, and gives blue color on reduction by Vitamin C (Ascorbic Acid). This allows to measure Vitamin C (L-Ascorbic Acid) in beverages with fruit juice, some process water, and others that are free of reducible substance, easily and rapidly.

Caution

1. This product only measures Vitamin C (L-Ascorbic Acid) in the sample. Tannins and polyphenols, like isoflavone, or other reductant will produce similar color.
2. It is very dangerous to use directly on 100% fruits juice available in the market, because it will foam. Make at least 10 fold dilution of the juice prior to use. If the object you are trying to measure is in solid form, mash it well and extract by pure water, then convert the result to Vitamin C contents of the object.
3. The optimum pH upon reaction will be around 10. If the pH of the sample exceeds 4-11, please neutralize with dilute sodium hydroxide solution or dilute sulfuric acid prior to use.
4. Using 100mg/100mL Vitamin C solution, it develops color the same as or darker than ≥ 4 on the Standard Color. When the result is expected to be very high, please dilute the sample prior to measurement.
5. Keep temperature of the sample between 15-40°C. If the temperature is lower, it will take longer reaction time.
6. Ensure that the PACKTEST tube is filled up to the half.
7. Even the reagent is not completely dissolved, it will not affect the reading.
8. Turbidity will not affect the result.
9. When comparing to the Standard Color, please be sure to read under the daylight or equivalent light source. It may be difficult to determine the closest color under the direct sunlight, certain florescent lights, mercury lamp, or LED.
10. You can put the line back into the tube 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 acceptable level by adding each of the single substances to the standard solution.

- $\leq 100\text{mg/L}/100\text{mL}$: Al^{3+} , B(III), Ca^{2+} , Cl^- , F^- , I^- , K^+ , Mg^{2+} , Na^+ , NH_4^+ , NO_3^- , PO_4^{3-} , Zn^{2+}
- $\leq 50\text{mg/L}/100\text{mL}$: NO_2^-
- $\leq 20\text{mg/L}/100\text{mL}$: Anionic Surfactant
- $\leq 2\text{mg/L}/100\text{mL}$: Cu^{2+} , Fe^{3+}
- $\leq 0.5\text{mg/L}/100\text{mL}$: Residual Chlorine
- $\leq 0.2\text{mg/L}/100\text{mL}$: Mn^{2+}
- $< 0.1\text{mg/L}/100\text{mL}$: Fe^{2+} , Phenol

Seawater does not affect the result.

Oxidizing substances will consume Vitamin C.

Reducible substances, like Polyphenol, produce similar color.

【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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