



Vitamin B2 (VB2) Rapid Test (DTS833L)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Size 50T

Intended Use

Vitamin B2 Rapid Test is a rapid, one step test for the qualitative detection of Vitamin B2 in energy drink or VB2 tablets.

General Description

Vitamin B2, also known as riboflavin, is one of the eight B-complex vitamins that are essential for human health. Riboflavin is found in eggs, nuts, dairy products, meats, broccoli, brewer's yeast, Brussel sprouts, wheat germ, wild rice, mushrooms, soybeans, green leafy vegetables and whole grain and enriched cereals and bread. Vitamin B2 is manufactured in the body by the intestinal flora and is easily absorbed, although very small quantities are stored, so there is a constant need for this vitamin. It is required by the body to use oxygen and the metabolism of amino acids, fatty acids, and carbohydrates. Vitamin B2 is further needed to activate vitamin B6 (pyridoxine), helps to create niacin and assists the adrenal gland. It may be used for red blood cell formation, antibody production, cell respiration, and growth. It eases watery eye fatigue and may be helpful in the prevention and treatment of cataracts. Vitamin B2 is required for the health of the mucus membranes in the digestive tract and helps with the absorption of iron and vitamin B6.

Principles of Testing

The Vitamin B2 rapid test is based on competitive inhibition immuno-chromatographic principle. In the flow process, VB2 in the sample combined with VB2 specific colloidal gold-labeled monoclonal antibody, inhibit the combination between antibody and VB2-BSA conjugate on Test line of NC membrane, lead to the color change of Test line. When the sample has no VB2 residue or concentration lower than detection limit, T line appears; when the concentration is equal to or higher than detection limit, T line has no color. No matter whether there is VB2 residue in sample, C line will appear, it means the test is valid.

Reagents And Materials Provided

1. VB2 Testing Device: 50 tests/kit
2. Sample Dropper: 50 pcs
3. Test Instructions

Materials Required But Not Supplied

1. Specimen collection container.
2. Clock or timer.
3. Centrifuge capable of 1,000 g centrifugal force.
4. 0.2- μ m filter membrane.
5. Distilled water.

Storage

Store at 4-30°C, DO NOT FREEZE or use beyond the expiration date. The shelf life is 12 months.

Specimen Collection And Preparation

1. Energy drink: Take an appropriate volume of energy drink, adjust the pH to 7.0-7.5, and then filter with 0.2- μ m filter membrane. Dilute the filtrate to an appropriate concentration for analysis.
2. VB12 tablets: Take two pieces of compound vitamin B tablets and dissolve it in pure water to generate a stock solution. Then centrifuge the stock solution at 6500g for 25 min at 4°C. And remove the lipid layer, collect the supernatant. Dilute the supernatant to an appropriate concentration for analysis.

Assay Procedure

NOTE: Bring an unopened foil pouch and the sample specimen to room temperature before performing the test.

1. Remove the test cassette from the sealed pouch.
2. Holding the dropper vertically, add 4 drops of diluted samples directly to the sample well "S" of the test device, and start the time.
3. Read the result at 10-15 minutes.

Important: Discard the test device after reading the result. Do not interpret the result after more than 15 minute.

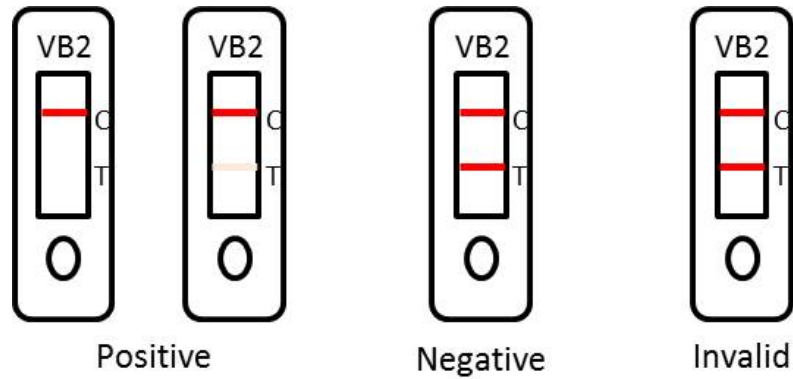
Interpretation Of Results

Negative (-): Color of Test Line (T line) is deeper than Control Line(C line) or the same color, indicating that the content of Vitamin B2 in sample is lower than the LOD of the kit.

Positive (+): No color shows in Test line or Color of Test Line is lighter than Control Line indicating that the Vitamin B2 in sample is higher than the LOD of the kit.

Invalid: No color shows in Control Line, indicating the operation is incorrect or the test kit is out of date. In this case, please read the instruction again

carefully, and repeat the assay with a new test cassette.



Detection Limit

The detection limit of VB2 with this test is about 50 ng/mL (ppb)

Precautions

1. The test card can be used only once at room temperature, do not use test card out of expiry date.
2. Do not touch the white membrane surface in the middle of test card, avoid sunlight and fan blowing directly.
3. The sample needs to be fresh and unpolluted, return to room temperature before test for samples at cool or frozen storage.
4. Test again for positive results.
5. Please contact the supplier for any questions.
6. The results of this test if for reference only, to confirm, please refer to National standard.

Limitations

1. Although the Vitamin B2 Rapid Test is very accurate in detecting elevated Vitamin B2 levels, a low incidence of false results can occur.