

Neomycin Rapid Test (Milk)

Cat. No.:DTS451

Pkg.Size:

Intended use

CD Neomycin Rapid Test is a competitive immunoassay for the semi-quantitative detection of the presence of Neomycin residue in milk.

Cut-off: 400 ppb

Assay Time: 5 - 10 min

Sample: Defatted milk

General Description

Neomycin is an aminoglycoside antibiotic found in many topical medications such as creams, ointments, and eyedrops. The discovery of neomycin dates back to 1949. It was discovered in the lab of Selman Waksman, who was later awarded the Nobel Prize in Physiology and medicine in 1951. Neomycin belongs to aminoglycoside class of antibiotics that contain two or more aminosugars connected by glycosidic bonds. Neamine (two rings), ribostamycin (three rings), paromomycin (four rings), and lividomycin (five rings) are some other examples of aminoglycosides. They have shown tremendous potential as antibacterials. One of them, gentamicin, has been used extensively in clinical practice. Due to the inherent oto- and nephrotoxicity of these substances, systemic use has declined, as safer alternatives have become available.

Principle Of The Test

CD Neomycin Rapid Test is based on competitive lateral flow immunochromatographic assay. The Neomycin conjugate in the test zone will capture the immuno-gold (colloid gold- Neomycin antibody conjugate), when there is very little dissociative Neomycin in the samples. A visible red test band indicates a negative result when the control line (C zone) shows that the card is valid. The test band (T zone) will be not visible if Neomycin is present in concentration of 400 ppb and above which explains a positive result.

Reagents And Materials Provided

1. 10×foil pouches each contain one cassette and a desiccant
2. 10×centrifugal tubes (1.5 mL)
3. Product Manual

Storage

The kit can be stored at room temperature (2-30°C). The test kit is stable through the expiration date (18 months) marked on the foil pouch. **DO NOT FREEZE.** Do not store the test kit in direct sunlight.

Assay Procedure

1. Bring 2-3 mL of the under tested milk to room temperature (20-30°C).
2. Collect 1mL of milk sample into a centrifugal tube. Do centrifugation at 7000 rpm for 3-4 min to separate the fat component.
3. Take out the cassette from the foil pouch and place it horizontally.
4. Insert the pipette through the fat layer (5 mm below) to collect the defatted milk and gradually drip 3 drops into the assay

sample hole "S".

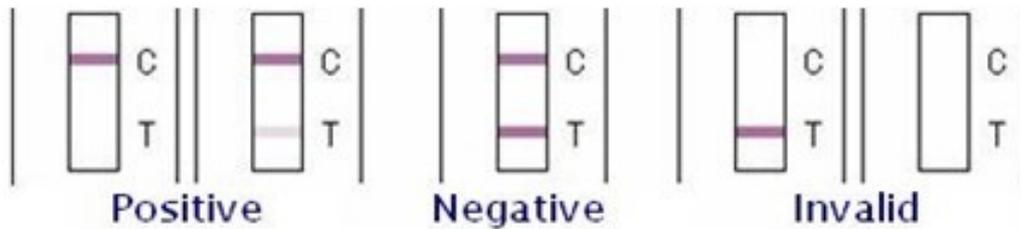
5. Interpret the result in 5-10 minutes. Result after 10 minutes is considered as invalid.

Interpretation of Results

Positive: Only one clear band in C zone indicates a positive result. Positive shows that the concentration of Neomycin is at or above 400 ppb in the samples.

Negative: The presence of both clear band in C zone and T zone.

Invalid: No colored band appears in C zone.



Specificity

The results are negative when the test card is applied to detect 100 ppm of Chloramphenicol, Macrolides, Beta-lactam, Sulfonamides, Tetracycline, Gentamicin and Streptomycin.

Precautions

1. For best results, please strictly adhere to these instructions.
2. All reagents must be at room temperature before running the assay.
3. Do not remove test cassette from its pouch until immediately before use.
4. Do not reuse the test kit.
5. Do not use the test beyond its expiration date marked on the foil pouch.
6. The components in this kit have been quality control tested as standard batch unit. Do not mix components from different lot numbers.

Limitations

CD Neomycin Rapid Test is an useful tool offering a rapid and accurate testing in field screening, exceeding with its convenience. It provides a semi-quantitative method to detect the Neomycin above 400 ppb in milk. If you want a quantitative result, it is suggested to apply other method such as ELISA / HPLC in practice.

REFERENCES

1. "G418/neomycin-cross resistance?". Retrieved 2008-10-19.
2. "Your Medicine Cabinet". DERMAdoctor.com, Inc. Retrieved 2008-10-19.
3. "The Nobel Prize in Physiology or Medicine 1952". Nobel Foundation. Retrieved 2008-10-29.