

NEOMYCIN ELISA KIT

The misuse of neomycin in breeding can determine the presence of residues in biological fluids and animal tissue. The European Commission established a neomycin Maximum Residue Limit (MRL) of 500 ppb in muscle, fat and liver tissues, 1500 ppb in milk and 5 ppm in kidney.

Sometimes industry looks for the minimum presence of neomycin, far away from the MRL. Food industries can apply this rapid method both to screen foodstuffs and to identify the drug residue in case of positive results by microbial inhibition assays. The dosing range around the MRLs is fitting the purpose.

Assay principle

Competitive enzyme immunoassay.

Applications

Tissue, urine, raw milk.

Standard curve range

- Tissue, urine: 10 – 1000 ng/ml.
- Raw milk: 50 – 1000 ng/ml.

Detection limits

- Tissue: 100 ppb.
- Raw milk: 500 ppb.
- Urine: 250 ppb.

Measuring ranges

Tissue

- 100 – 10000 ppb.

Raw milk

- 500 – 10000 ppb.

Urine

- 250 – 25000 ppb.

Specificity (% of cross-reactivity)

Neomycin	100
Gentamicin	< 0.1
Kanamycin	< 0.1
Streptomycin	< 0.1

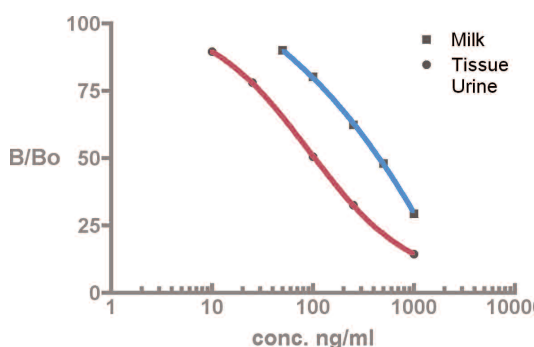
Sample preparation

- Tissue: homogenization, extraction, centrifugation, dilution.
- Urine: centrifugation or filtration, dilution.
- Raw milk: centrifugation, dilution.

Assay time

30 min. (sample preparation not included).

Example of calibration curve



Advantages

- Fast.
- Easy sample preparation; no columns required.
- 48 wells format available.
- Measuring range fitting with regulatory limits for tissue and milk samples.
- No lyophilized reagents.
- Reagents stable at 4 °C after opening.
- Spreadsheet to calculate sample concentration downloadable at www.tecnalab.com.

Storage

+2/+8 °C.

Shelf-life

8 months from date of manufacturing.

(rev. 20/07/06)

I'screen

NEOMYCIN

Cat. N. AB672/AB673

Kit contents

- Microtiter 96/48 well plate, 12/6 strips with 8 breakable wells.
- Neomycin standard, concentrated.
- Milk standard diluent, concentrated.
- Enzyme conjugate, concentrated.
- Enzyme conjugate diluent, ready to use.
- Dilution buffer, ready to use.
- Washing buffer, concentrated.
- Chromogen, concentrated.
- Citrate buffer, ready to use.
- Stop solution, ready to use.
- Instructions.

Manufacturer

Tecna Srl, ISO9001/UNI EN ISO 9001 – Ed. 2000
certified (SGS, N°. IT01/0291).

Materials not provided

- Distilled water.
- Trichloroacetic acid (tissue).
- Sodium hydroxide (tissue).

Additional equipment

- Meat grinder (tissue)
- Balance (tissue).
- Homogenizer or rotating wheel (tissue).
- Centrifuge possibly refrigerated (Relative Centrifugal Force requested: 2000 xg for tissue; 3000 xg for raw milk)
- Centrifuge (Relative Centrifugal Force requested: 2000 xg or filter paper, Whatmann n.1 or similar, for urine).
- pH paper (tissue).
- Micropipette 20-200 µl and 200-1000 µl with suitable tips.
- Multichannel micropipette 20-300 µl with suitable tips and reagent boats (optional).
- ELISA plate or strip reader with a 450 nm filter.