



## User's Manual

# Nitrofurantoin (AHD) ELISA Kit



DEIA-XYZ32



96T



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

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

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## PRODUCT INFORMATION

### Intended Use

This ELISA Test Kit provides a competitive enzyme immunoassay for the quantitative analysis of nitrofurantoin in feed, fish, shrimp, meat, eggs, honey, milk, serum and urine. The new version of this kit allows for the accurate quantitation of AHD at a broader range than any of the other commercially available kits with standards ranging from 0.025 to 6.4 ppb.

### General Description

Nitrofurantoin belongs to the class of 5-nitrofuran antibiotics and has been widely and effectively used for the prevention and treatment of gastrointestinal infections caused by *Escherichia coli* and *Salmonella* spp. in cattle, pigs and poultry. It was also used as a growth promoter in food-producing animals. However, both WHO and the European Union (EU) are unable to assign a maximum residue limit for nitrofurantoin because of the potential carcinogenic effects of its residues on human health. As a consequence, the administration of nitrofurantoin to food-producing animals has been prohibited. Because of the rapid excretion of the nitrofurans and their instability in vitro and in vivo, it is impossible to monitor residues of the parent drug nitrofurantoin directly. Alternatively, 1-aminohydantoin (AHD), the major metabolite of nitrofurantoin, which is stable in tissue, even after long-term storage, is selected to monitor.

### Storage

2-8°C

### Reconstitution And Storage

The shelf life is 12 months when the kit is properly stored.

### Detection Range

This ELISA Test Kit has the capacity for 96 determinations or testing of 42 samples in duplicate (assuming 12 wells for standards).

### Detection Limit

Fish&Shrimp: 0.05 ppb; Meat, Liver&Kidney: 0.05 ppb; Feed: 0.1 ppb; Egg&Egg Powder: 0.05 ppb;  
Milk&Honey: 0.05 ppb; Serum&Urine: 0.05 ppb