



EuroProxima
Close to your analysis

AHD ELISA (5091AHD)

General

Nitrofurans are a group of synthetic broad-spectrum antibiotics, which have been widely used for the prevention and treatment of gastrointestinal infections. Moreover, nitrofurans have been employed as growth promoters in livestock.

The four major nitrofurans are furazolidone, furaltadone, nitrofurantoin and nitrofurazone. They are banned in the EU for use as veterinary drugs due to their toxic properties. In 2003 a MRPL (Minimum Required Performance Limit) was set at 1 ppb in the EU for all four of the above mentioned nitrofurans in poultry and aquaculture products (Commission Decision 2003/181/EC).

Nitrofurans are rapidly metabolised in animal tissue to persistent protein-bound residues. AHD is the resistant metabolite of the parent compound nitrofurantoin.

The **AHD ELISA** is a competitive enzyme immunoassay based on antibodies directed against AHD.

Kit characteristics

Microtiter plate:

96 Wells
12 x 8 Breakapart

Antibody cross-reactivity:

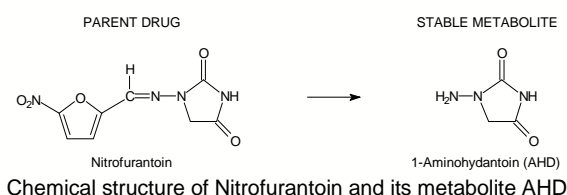
| | |
|------|---------|
| AHD | 100% |
| AMOZ | < 0.01% |
| AOZ | < 0.01% |
| SEM | < 0.01% |

Conjugate:

AHD-HRP stabilized

Standard range (ready-to-use):

0, 0.0625, 0.125, 0.25, 0.5, 1.0 and 2.0 ng/ml
AHD-NP



Assay characteristics

| Matrices | LOD (ppb) |
|------------------------|------------------|
| Milk | 0.2 |
| Honey | 0.5 |
| Egg (powder) | 0.2 |
| Shrimps | 0.2 |
| Fish | 0.2 |
| Tissue (muscle, liver) | 0.2 |
| Urine | 0.2 |

The Limit of detection (LOD) is calculated as: $X_n + 3SD$ and is determined under optimal conditions.

Sample preparation

For milk, honey, egg (powder), shrimps, fish, tissue (muscle, liver) and urine fast and efficient methods are included in the kit manual.

Procedure

Derivated AHD (standard or sample) and AHD-HRP are pipetted into the wells and incubated for 30 minutes at 20°C - 25°C. After a washing procedure ready-to-use substrate is added and incubated for 15 minutes at 20°C - 25°C. The reaction is stopped and the absorbance is read in a spectrophotometer at 450 nm.

EuroProxima's user-friendly software converts the measured optical density into the concentration of the metabolite in the starting material.