

## AHD chromatographic diagnostic kit

### Product Information

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**Cat.No.**

Kit-1894

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**Product Overview**

The AHD chromatographic diagnostic kit is based on the specific immuno-chemical reactions between antigen and antibody. It relies on the competition between AHD residues in the sample and the AHD immobilized on T line on the membrane for the AHD antibody-dye conjugate. Since the drug has been presenting in the sample, it will compete with the drug immobilized on T line, to the limited amount of dye-antibody. As a sufficient amount of drug in the sample is presenting, the drug will saturate the antibody. Consequently, it will show an extremely light or even invisible T line, indicating a positive result. On the other hand, if there is a negative sample (or the amount of the drug is lower than the minimum detectable concentration, 0.5 ppb), it will generate two obvious lines in both the T and C line section.

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**Description**

Nitrofurantoin is one of the nitrofurans which are synthetic broad-spectrum antibiotics, and often used for their antibacterial properties in food-producing animals. Nitrofurans have been banned on treating animals used for food production, because of the possibility of increased cancer risk if people are exposed to them over a long period of time. The European Union banned the use of nitrofurans in animal food production in 1995 with the United States following suit in 2002. Going beyond the ban on the use of nitrofurans, the EU implemented a stricter food import inspection policy after nitrofurans residues were found in poultry, fish and shrimp. The analysis of residues of nitrofurans needs to be based on the detection of the tissue bound metabolites of the nitrofurans parent drugs. Since the parent drugs are very rapidly metabolized, they are not detectable shortly after treatment. The tissue bound nitrofurans metabolites are detectable for a long time after administration and therefore they are used for the detection of the abuse of nitrofurans. Nitrofurans metabolites are found after administration of Furazolidone (metabolite:3-amino-2-oxazolidinone=AOZ), Furaltidone (metabolite: 3-amino-5-morpholino-methyl-2-oxazolidinone = AMOZ), Nitrofurantoin (metabolite:1-aminohydantoin = AHD) and

## AHD chromatographic diagnostic kit

Nitrofurazone (metabolite: semicarbazide = SEM).

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### Kit Components

1. Test cassette 2. Desiccant 3. Dropper 4. 10X Sample buffer (1 mL/ tube) 5. Derivative reagent: 1  
bottle/kit, 8 mL/bottle

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### Compatible Sample Types

Fish; Shrimps; Chicken; Pork; Honey

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### Features & Benefits

• No instrumentation required • High specificity • High sensitivity • Highly reproducibility • Quick results

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### Sensitivity

Sample Cut-off (ppb) Fish, Shrimps, Chicken, Pork, Honey 0.5

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