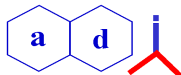
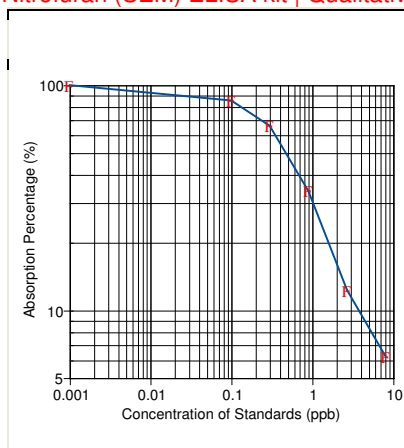


Nitrofurantoin (SEM) ELISA Kit, Cat# DE-100075



Nitrofurantoin (SEM) ELISA kit | Qualitative & Quantitative | Stds = 0-8.1 ppb | Sample= 50 ul; 80 min assay | Sensitivity 0.1 ppb |



Nitrofurantoin (SEM) ELISA Kit Features

- Pre-coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs over 12 months.
- Convenient liquid Standards, containing pre-diluted standard 0-8.1 ppb.
- SEM reactivity 100% (< 0.1% with AHD, AMOZ and AOZ).
- Sensitivity 0.1 ppb; 50ul samples.
- 80 minute, 3 incubation steps at 37 °C.
- Easy procedure for sample preparation.

This kit is for measuring SEM in honey, fish, shrimp, chicken liver, fish and shrimp. For in vitro research use only.

Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

- Step 1.** Pipet 50 ul of each standards and samples containing SEM (diluted as required) and 50 ul of antibody working solution in duplicates into the wells. Seal the plate, mix gently and incubate at 37 °C for 30 min.
- Step 2.** Aspirate and wash the plate five times. Add 100 ul of enzyme conjugate into the wells and incubate at 37 °C for 30 min.
- Step 3.** Aspirate and wash the plate five times. Add 50 ul of Substrate A solution and then 50 ul of Substrate B solution to all wells, mix gently, and incubate at 37 °C for 15 min in the dark for coloration.
- Step 4.** Pipet 50 ul of stop solution into each well and mix gently (blue color turns yellow). Measure OD at A450 nm. Calculate concentration of SEM in each sample using the SEM Standard curve.

General Information

Semicarbazide (SEM) is the metabolite residue of nitrofurazone. There are four main types of nitrofurantoin, they are: furazolidone, furaltadone, nitrofurazone and nitrofurantoin. Nitrofurazone's chemical formula is C₆H₆N₄O₄ and molecular weight is 198.14 g/mol. It is an antibiotic widely used against Escherichia coli and Salmonella to treat and prevent the infections in gastrointestinal on animals including cattle, swine and poultry. It is also used in veterinary practice as an antibiotic and growth promoter. It can kill various gram-positive and gram-negative bacteria, which are mainly found in animal and aquaculture production. For that reason in some countries it is widely used mixed in animals' water and food. Nitrofurazone residue, SEM, can be passed through the food chain to human. SEM can cause cancer, teratogenesis, and other side effects. The mechanism of the drug works by interfering with various chemical reactions in the bacteria and damaging its DNA. Since its high toxicity on February of 2002 FDA banned the use of any nitrofurantoin drug in food-producing animals. SEM is very stable in tissue so it will be a good source to be detected on fishes, shrimps and animal muscles and livers. SEM can be detected by LC-UV, LC-MS, or LC-MS/MS methods, however SEM ELISA is a more sensitive and low cost tool to detect the use of nitrofurazone.

Alpha Diagnostic Intl's Nitrofurantoin (SEM) ELISA kit is a highly sensitive competitive type assay for the measurement of SEM in chicken, fish, shrimp, milk, honey and whole egg.

Related Items:

Item No.	Description	Qty/Size
DE-100010	Clenbuterol ELISA kit, 96 tests (For Urine, Serum, Feed, Meat, Liver)	1 kit
DE-100020	Ractopamine ELISA kit, 96 tests (For Liver, Urine, Feed)	1 kit
DE-100030	Salbutamol ELISA kit, 96 tests (For Urine, Tissue, Feed, Animal Tissue, Aquatic, Honey, Intestine)	1 kit
DE-100040	Chloramphenicol ELISA kit, 96 tests (For Animal Tissue, Aquatic, Honey, Intestine, Urine, Egg, Milk, Serum)	1 kit
DE-100050	Florfenicol ELISA kit, 96 tests (For Animal Tissue, Aquatic, Honey)	1 kit
DE-100060	Nitrofurantoin (AMOZ) ELISA kit, 96 tests (For Fish, Shrimp, Honey, Chicken/Liver)	1 kit
DE-100070	Nitrofurantoin (AHD) ELISA kit, 96 tests (For Fish, Shrimp, Honey, Chicken/Liver)	1 kit
DE-100075	Nitrofurantoin (SEM) ELISA kit, 96 tests (Honey, Fish, Shrimp, Chicken/Liver, Fish/Shrimp)	1 kit
DE-100080	Nitrofurantoin (AOZ) ELISA kit, 96 tests (For Fish, Shrimp, Honey, Chicken/Liver)	1 kit
DE-100090	Sulfonamides Residues (SAs) ELISA kit, 96 tests (For Chicken/Liver, Pork/Liver, Honey/Egg, Serum/Urine, Milk)	1 kit
DE-100100	Sulfanethiazine (SM2) ELISA kit, 96 tests (For Chicken/Liver, Pork/Liver, Honey/Egg, Serum/Urine, Milk)	1 kit
DE-100110	Sulfamethoxydiazine (SMD) ELISA kit, 96 tests (For Chicken/Liver, Pork/Liver, Honey/Egg, Serum/Urine)	1 kit
DE-100120	Quinolones (QNS) ELISA kit, 96 tests (For Pork/Liver, Chicken/Liver, Shrimp, Fish, Serum, Honey)	1 kit
DE-100130	Enrofloxacin ELISA kit, 96 tests (For Pork/Liver, Chicken/Liver, Shrimp, Fish, Serum, Honey)	1 kit
DE-100140	Ampicillin ELISA kit, 96 tests (For Pork/Liver, Chicken, Duck, Shrimp, Fish, Honey, Milk)	1 kit
DE-100150	Benzyl Penicillin ELISA kit, 96 tests (For Pork/Liver, Chicken, Duck, Shrimp, Fish, Honey, Milk)	1 kit
DE-100160	Tylosin ELISA kit, 96 tests (For Meat, Liver, Honey, Egg)	1 kit
DE-100170	Trenbolone ELISA kit, 96 tests (For Animal Tissue, Aquatic, Urine)	1 kit
DE-100180	Diazepam ELISA kit, 96 tests (For Tissue, Urine, Feed)	1 kit
DE-100190	Diethylstilbestrol (DES) ELISA kit, 96 tests (Fish, Shrimp, Liver, Meat, Feed, Urine)	1 kit
DE-100200	Gentamicin ELISA kit, 96 tests (Chicken/Liver)	1 kit
DE-100210	Streptomycin ELISA kit, 96 tests (Chicken/Liver, Honey, Milk)	1 kit
DE-100230	Olaquinox ELISA kit, 96 tests (Tissue)	1 kit
DE-100240	Sulfaquin-oxaline ELISA kit, 96 tests (For Pork/Liver, Honey/Egg, Serum/Urine, Milk)	1 kit

DE-100075-flr 101006V

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