

Immunoscreen Corticosteroids

Cat. N. FA679



Corticosteroid ELISA kit

Corticosteroids or glucocorticoids are synthetic drugs with a steroid molecular structure. They show immunosuppressive and antiflogistic effects, therefore they are widely used in veterinary medicine. EU fixed a dexamethazone maximum residual limit of 2 ppb for bovine, equine, swine liver and 0.3 ppb for bovine milk. Urine monitoring during breeding allow to limit an incorrect use of this drug.

Assay principle

Competitive enzyme immunoassay for quantitative analysis of corticosteroids (Dexamethasone, Betamethasone, Triamcinolone, Flumethasone, Prednisolone).

Applications

Liver, urine and milk.

Standard curve range

0.01-0.5 ng/ml.

Detection limits (ppb) in bovine matrix

Matrix	Dexame- thasone	Betame- thasone	Flume- thasone	Predni- solone
Urine	0.25	0.4	0.25	1.2
Liver	0.2	0.3	0.2	0.9
Milk	0.05	0.07	0.05	0.2

Measuring range

Urine: 0.25 – 12.5 ppb

Liver: 0.2 – 10 ppb

Milk: 0.05 – 2.5 ppb

Specificity (% of cross-reactivity)

Dexamethasone	100%
Flumethasone	92%
Betamethasone	70%
Triamcinolone	21%
Prednisolone	20%
Methylprednisolone	0.2%

Sample Preparation

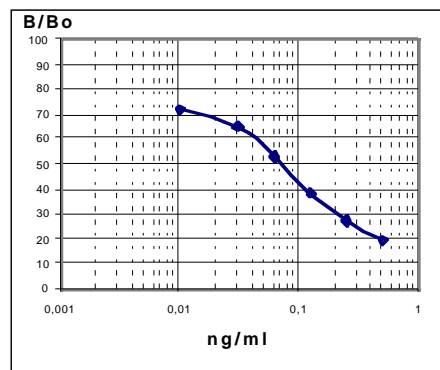
Urine: dilution.

Liver: extraction in acetonitrile, centrifugation, evaporation, resuspension.

Milk: centrifugation, extraction in acetonitrile, centrifugation, evaporation, resuspension.

Assay time: 1 hour and 15 min. (sample preparation not included).

Example of calibration curve



Kit contents

- Microtiter 96 well plate, 12 strips with 8 breakable wells
- Standard solutions of dexamethazone, ready to use
- Antibody anti-corticosteroids, ready to use
- Enzyme conjugate, concentrated
- Developing solution, ready to use
- Washing buffer, concentrated
- Dilution buffer, ready to use
- Stop solution, ready to use
- Instructions

Material not provided

- Distilled water.
- Acetonitrile (liver and milk samples)

Additional equipment

- Bench-centrifuge
- Homogenizer (for liver samples)
- Balance (for liver samples)
- Automatic shaker (for liver and milk samples)
- Evaporation system (for liver and milk samples)
- Micropipettes 20-200 μ l and 200-1000 with suitable tips
- Multichannel micropipette 20-300 μ l with suitable tips (optional)
- ELISA plate or strip reader with a 450 nm filter

Advantages

- Detection of a wide number of corticosteroids in different matrices
- Most of the components ready to use.
- Incubation time decreased.

Storage conditions: +2/+8 °C.

Shelf life: 9 months after manufacture.

Manufacturer

Tecna S.r.l., ISO9001/UNI EN ISO 9001 – Ed. 2000 (SGS N°. IT01/291).