# *Immunoscreen* CAP

**Cat. N. AB630**

## Chloramphenicol ELISA kit

*Chloramphenicol is primarily bacteriostatic. It inhibits bacterial protein synthesis.*
*The drug is associated with random cases of aplastic anaemia, a serious blood disorder for which there is no cure, and which is usually fatal. In addition, there are concerns related to potential carcinogenicity and genotoxicity of the drug as well as the potential to cause antimicrobial resistance.therfore this drug is banned for use in food-producing animals in the majotiry of countries. According to a Codex Alimentarius decision, CAP should be banned from food production.*

**Assay principle**
Competitive enzyme immunoassay for the quantitative analysis of chloramphenicol (CAP).
This CAP-enzyme immunoassay is suitable for the detection of CAP and its glucuronide (major metabolite in urine).

**Applications**
Urine, milk, honey, serum, plasma, feed, eggs, tissue, shrimps, fish and water.

**Standard curve range**
0.1-2 ng/ml

**Detection limits**
Serum, water and urine: 0.1 ppb
Shrimps and fish: 0.02 ppb
Tissue, feed and egg: 0.05 ppb
Milk 0.01 ppb
Honey: 0.025 ppb

**Measuring range**
Serum, water and urine: 0.1 – 2 ppb
Shrimps and fish: 0.02 – 0.4 ppb
Tissue, feed and egg: 0.05 –1 ppb
Milk: 0.01 – 0.2 ppb
Honey: 0.025 – 0.5 ppb

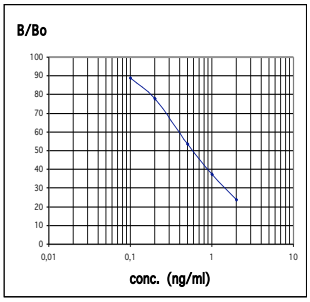
**Specificity (% cross-reactivity)**

| | |
|---|---|
| Chloramphenicol | 100% |
| Chloramphenicol glucuronide | 70% |

**Sample preparation**
Serum and plasma: extraction with solvents.
Urine:
method I: adjustment the pH if necessary.
method II: enzymatic hydrolysis, extraction.
Tissue, feed, shrimps, fish and egg: homogenization, extraction with solvents and centrifugation
Honey: dilution, extraction with solvents and centrifugation.
Milk: centrifugation, extraction with solvent and dilution.
Water: adjustment the pH if necessary.

**Assay time**
45 minutes, sample preparation not included.

**Example of standard curve**




**Kit contents**
- Microtiter 96 well plate, 12 strips with 8 breakable wells)
- Chloramphenicol standard solutions: 0, 0.1, 0.2, 0.5, 1, 2 ng/ml, ready to use
- Enzyme conjugate, concentrated
- Enzyme conjugate diluent, ready to use
- Anti-chloramphenicol antibody, ready to use
- Dilution buffer, concentrated
- Developing solution, ready to use
- Washing buffer, concentrated
- Stop solution, ready to use
- CAP spiking solution
- Instruction

**Materials not provided**
- Distilled water
- Ethylacetate
- Acetic acid (urine: method II)
- β-glucuronidase from *Helix pomatia* (urine: method II)
- Isooctane/chloroform (honey)
- Hexane (tissue/feed/egg: alternative method, shrimps and fish)

**Additional equipment**
- Vortex (serum and plasma)
- Bench-centrifuge (serum, plasma, tissue, feed, egg, honey, shrimps, fish)
- Centrifuge refrigerated (milk)
- Evaporation apparatus (serum, plasma, urine: method II, tissue, feed, egg, honey, milk, shrimps, fish)
- pHmeter (urine and water)
- Incubator (urine: method II)
- Balance (tissue, feed, egg, shrimps, fish)
- Homogenizer (tissue, feed, egg, shrimps, fish)
- Rotatory shaker (tissue, feed, egg, honey, shrimps, fish)
- Water bath (tissue, feed, egg, honey, shrimps, fish)
- Micropipette 20-200 µl with suitable tips
- Multichannel micropipette 50-200 µl with suitable tips
- ELISA plate or strip reader with a 450nm filter

**Storage conditions:** +2/+8 °C

**Shelf-life:** 6 months after manufacture.

**Manufacturer**
Tecna Srl, ISO9001/UNI EN ISO 9001 – Ed. 2000 certified (SGS, N°. IT01/0291).

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