FLORFENICOL/THIAMPHENICOL ELISA (5091FLOR)

General

Florfenicol (FF) and thiamphenicol (TAP) are effective broad-spectrum antibiotics and analogue compounds of chloramphenicol (CAP). Due to the European ban of the use of CAP in food-producing animals, FF and TAP are used to control infections in humans, pigs, poultry, non-ruminating cattle and aquaculture.

Within the EU, Maximum Residue Limits (MRLs) for FF as well as for TAP have been established. For FF MRLs have been set at levels varying from 100 to 3000 ppb; whereas for TAP a general MRL of 50 ppb is set for all target tissues.

The Florfenicol/Thiamphenicol ELISA is a competitive enzyme immunoassay based on antibodies directed against florfenicol/thiamphenicol.

Kit characteristics

*Microtiter plate:*
- 96 Wells
- 12 x 8 Breakapart

*Antibody cross-reactivity:*
- Florfenicol 100%
- Thiamphenicol 110%
- Chloramphenicol <1%
- Florfenicol amine <1%

*Standard range (ready-to-use)*
- 0, 0.05, 0.1, 0.3, 1.0 and 3.0 ng/ml

Assay characteristics

*Matrices* | *LOD(ppb)*
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Fish | 0.05
Shrimp | 0.05
Pork | 0.05
Chicken | 0.05
Egg | 0.15
Milk | 0.30
Honey | 2.50

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

Sample preparation

For fish, shrimp, pork, chicken, egg and milk fast and efficient extraction methods are included in the kit manual.

Procedure

Antibody, conjugate and standard/sample 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 20 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.