NEW

ANTIBIOTICS

EXPLORER 2.0

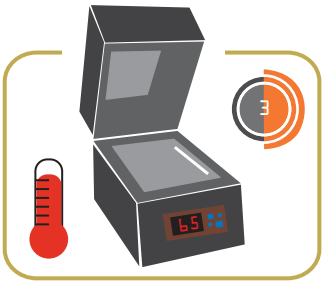
Food contaminated with antibiotic residues should be prevented from reaching the consumer. The detection of antibiotics is compulsory and levels should comply with the Maximum Residue Limits (MRL) state by the European Union (Commission Regulation (EU) No 37/2010). The Four Plate test is commonly used for detection of antibiotics in food. This method is tedious, requires stabilization of several bacteria strains and takes about 24 hours. Moreover, the sensitivity is well above the MRL for sulfonamides. Explorer is a microbial growth inhibition test that can be used for detection of antibiotic residues in food. It is a very simple and ready-to-use test, with a sensitivity complying with EU-MRLs.

Detection of inhibitory substances in food

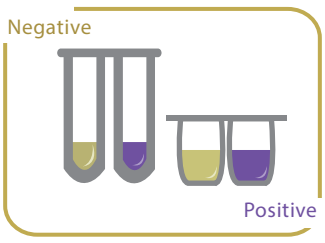
- ✓ **Sensitive :** complying with EU MRLs
- ✓ **Qualitative:** broad-range screening of inhibitors
- ✓ **Assay time:** about 3h
- ✓ **Results:** visual or photometrical (595 and 650 nm) reading
- ✓ **Suitable for:** raw meat, liver, kidney, feed and eggs
- ✓ **Format:** microtiter plate with individual tests and ampoules

Assay procedure

1 100 µl sample



2 Difussion at RT/20 min
Wash
Incubation at 65ºC / 3 h



3 Result

ZEU

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LODs in beef meat

β-lactams	LOD (µg/Kg) TUBES	PLATE	UE-MRL (µg/Kg)
amoxicillin	10	10	50
cefalexin	200	150	200
cloxacillin	<50	<50	300
ceftiofur	200	100	1.000
penicillin G	<20	<20	50
Tetracyclines			
doxycycline	100	100	100
oxytetracycline	100	100	100
Sulfonamides			
sulfathiazole	100	100	100
sulfadiazine	100	100	100
Macrolides			
tylosin	100	100	100
lincomycin	100	100	100
Aminoglycosides			
neomycin	250	250	500
gentamicin	50	50	50

Explorer a microbial growth inhibition test for detection of antibiotic residues in food

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