

Antibiotics in Apiculture

Antibiotics are used in apiculture to treat bacterial foulbrood diseases, for example American Foulbrood (AFB). Antimicrobial drugs are effective against foulbrood diseases, however antibiotic drug residues in honey pose a potential risk to human health.

Hypersensitivity reactions to sulphonamide drug residues in food for example include skin rash, hives, pruritus and anaphylaxis. Recent import alerts in the USA over antibiotic drug use in honey have led to an increase in drug residue surveillance and a demand for rapid, sensitive screening methods for antibiotic drug residues.

For this reason, Randox give you Biochip Array Technology.



Biochip Array Technology

Biochip Array Technology provides you with:

- Simultaneous, multi- analyte testing with just one honey sample.
- Based on ELISA principles.
- Proven technology utilised worldwide.
- Rapid and simple analysis giving you more time to tend to your hives.
- Peace of mind knowing that you're spending less money than outsourcing and getting the most accurate results possible.



Randox has developed the semi-automated Evidence Investigator to aid you in your honey analysis.

Randox Elisa Kits

Randox manufacture a range of sensitive, accurate and reliable [ELISA tests](#) for the screening of drug residues in honey, offering a simple, accurate and reliable method for the identification of positive samples.

Please contact Randox for further details about our range of ELISA's available for screening purposes.

CONTACT US
Via E-Mail

Specificity

ANTIMICROBIAL ARRAY I

Assay	Compound	Specificity (%CR)
Sulphadimethoxine	Sulphadimethoxine	100
Sulphadiazine	Sulphadiazine	100
Sulphadoxine	Sulphadoxine	100
Sulphamethazole	Sulphamethazole	100
	Sulphachlorpyridazine	23.9
Sulphachlorpyridazine	Sulphachlorpyridazine	100
Sulphamethoxypyridazine	Sulphamethoxypyridazine	100
Sulphamerazine	Sulphamerazine	100
Sulphisoxazole	Sulphisoxazole	100
Sulphathiazole	Sulphathiazole	100
Sulphamethazine	Sulphamethazine	100
Sulphaquinoxaline	Sulphaquinoxaline	100
Sulphapyridine	Sulphapyridine	100

ANTIMICROBIAL ARRAY III

Assay	Compound	Specificity (%CR)
AOZ	4-NP-AOZ	100
	Furazolidone	8
AMOZ	4-NP-AMOZ	100
	Furaladone	41
AHD	4-NP-AHD	100
	Nitrofurantoin	42
SEM	4-NP-SEM	100
	5-Nitro-2-furaldehyde	14
	Semicarbazone	
Chloramphenicol	Chloramphenicol	100
	Chloramphenicol Glucuronide	75

ANTIMICROBIAL ARRAY II

Assay	Compound	Specificity (%CR)	Assay	Compound	Specificity (%CR)	
Quinolones	Norfloxacin	100	Thiamphenicol	Florphenicol	100	
	Pefloxacin	84			Thiamphenicol	53
	Enrofloxacin	76	Streptomycin	Streptomycin	100	
	Ciprofloxacin	59			Dihydrostreptomycin	182
	Ofloxacin	57	Tylosin	Tylosin	100	
	Piperidic acid	36			Tilmicosin	37
	Fleroxacin	32	Tetracyclines	Chlortetracycline	100	
	Levofloxacin	32			Tetracycline	195
	Nadifloxacin	27			4-epitetracycline	169
	Orbifloxacin	23			Rolitetracycline	130
	Danofloxacin	20			4-epioxytetracycline	102
	Marbofloxacin	16			Oxytetracycline	102
	Oxolinic acid	12			Demedocycline	80
	Difloxacin	8			Doxycycline	44
	Panzofloxacin	7		4-epichlortetracycline	39	
	Sarafloxacin	6		Methacycline	23	
	Enoxacin	4		Minocycline	<1	
Cinoxacin	<1					
Ceftiofur	Ceftiofur	100				

For further information or to request a visit from a Randox representative, please:

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