

Supporting Information

Analysis of Antibiotic Resistance Genes in Livestock Manure and Receiving Environment Reveals Non-Negligible Risk from Extracellular Genes

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Table A1 qPCR primers used in this study

Target gene	Primer sequence (5'-3')	Annealing temp (°C)	Reference
16S rRNA	F-CGGTGAATACGTTTCYCGG R-GGWTACCTTGTTACGACTT	55	1
<i>sul1</i>	F-CGCACCGGAAACATCGCTGCC R-TGAAGTTCCGCCGCAAGGCTG	56	2
<i>sul2</i>	F-TCCGGTGGAGGCCGGTATCTGG R-CGGGAATGCCATCTGCCTTGAG	60	2
<i>tetO</i>	F-ACGGARAGTTTATTGTATACC R-TGGCGTATCTATAATGTTGAC	46	3
<i>tetW</i>	F-GAGAGCCTGCTATATGCCAGC R-GGGCGTATCCACAATGTTAAC	60	3
<i>tetQ</i>	F-AGAATCTGCTGTTTGCCAGTG R-CGGAGTGTCAATGATATTGCA	60	3
<i>tetL</i>	F- GGTTTTGAAYGTYTCATTACCTGAT R- GATAGCTTTCCATATASAGCTGTTCC	55	4
<i>tetX</i>	F-AGCCTTACCAATGGGTGTAAA	60	3

	R-TTCTTACCTTGGACATCCCG		
<i>ermB</i>	F-CCGATACCGTTTACGAAATG	57	5
	R-TACTTTGGCGTGTTTCATTC		
<i>ermC</i>	F-GAAATCGGCTCAGGAAAAG	57	5
	R-TAGCAAACCCGTATTCCACG		
<i>strA</i>	F- TCAATCCCGACTTCTTACCG	60	6
	R- CACCATGGCAAACAACCATA		
<i>strB</i>	F- ATCGCTTTGCAGCTTTGTTT	60	6
	R- ATGATGCAGATCGCCATGTA		
<i>aadA</i>	F- GGTTATCGCCGAAGTATCAACTC	56	7
	R- CACCGTAACCAGCAAATCAATATC		
<i>cfr</i>	F-TGTGCTACAGGCAACATTGGAT	55	8
	R-CAAATACTTGACGGTTGGCTAGAG		
<i>bla_{OXA-1}</i>	F-TATCTACAGCAGCGCCAGTG	60	9
	R-CGCATCAAATGCCATAAGTG		
<i>bla_{AmpC}</i>	F-CCTCTTGCTCCACATTTGCT	58	9
	R-ACAACGTTTGCTGTGTGACG		
<i>bla_{TEM-1}</i>	F-CATTTTCGTGTCGCCCTTAT		
	R-GGGCGAAACTCTCAAGGAT	58	9
	R- ACGGCTACCCTCTGTTATC		

The related references

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