

Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus pneumoniae
Streptococcus agalactiae
Streptococcus pyogenes
Enterococcus faecalis
Enterococcus faecium
Proteus mirabilis
Escherichia coli
Serratia marcescens
Enterobacter aerogenes
Enterobacter cloacae
Enterobacter cloacae
Klebsiella pneumoniae
Pseudomonas aeruginosa
Acinetobacter calcoaceticus

Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus pneumoniae
Streptococcus agalactiae
Streptococcus pyogenes
Enterococcus faecalis
Enterococcus faecium
Proteus mirabilis
Escherichia coli
Serratia marcescens
Enterobacter aerogenes
Enterobacter cloacae
Klebsiella pneumoniae
Pseudomonas aeruginosa
Acinetobacter calcoaceticus

Substitute Sheet
(Rule 26) RO/AU

SNP273	
Staphylococcus aureus	CTTATAGATGGATCCGCGCTGCATTAGCTAGTTGGTAAGGTAACGGCTTACCAAGGCAAC
Staphylococcus epidermidis	CTTATAGATGGATCCGCGCGCATAGCTAGTTGGTAAGGTAACGGCTTACCAAGGCAAC
Streptococcus pneumoniae	CTACCAGATGGACCTCGCTGTATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Streptococcus agalactiae	CTGTGAGATGGACCTCGCTGTATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Streptococcus pyogenes	CTATGAGATGGACCTCGCTGTATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Enterococcus faecalis	TTGATGGATGGACCCCGGTCATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Enterococcus faecium	CTGATGGATGGACCCCGGTCATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Proteus mirabilis	CTATCGGATGAACCCATATGGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Escherichia coli	CCATCGGATGTGCCAGATGGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Serratia marcescens	CCATCAGATGTGCCAGATGGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Enterobacter aerogenes	CCATCAGATGTGCCAGATGGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Enterobacter cloacae	CCATCAGATGTGCCAGATGGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Klebsiella pneumoniae	CCATCAGATGTGCCAGATGGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Pseudomonas aeruginosa	CTATCAGATGAGCCTAGGTCGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
Acinetobacter calcoaceticus	CTAATAGATGAGCCTAAGTCGGATTAGCTAGTTGGTGGGTAACGGCTCACCAGGCGAC
**** * * ***** * * * * * * * * * * * * * * * * *	
Staphylococcus aureus	GATGCATAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Staphylococcus epidermidis	GATGCGTAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Streptococcus pneumoniae	GATACATAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Streptococcus agalactiae	GATACATAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Streptococcus pyogenes	GATACATAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Enterococcus faecalis	GATGCATAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Enterococcus faecium	GATGCATAGCCGACC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Proteus mirabilis	GATCCTAGCTGGTC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Escherichia coli	GATCCTAGCTGGTC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Serratia marcescens	GATCCTAGCTGGTC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Enterobacter aerogenes	GATCCTAGCTGGTC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Enterobacter cloacae	GATCCTAGCTGGTC-TGAGAGGGTGATCGGCCACACTGGAACTGAGACACGGTCCAGAC
Klebsiella pneumoniae	GATCCGTAAGTGGTC-TGAGAGGGTGATCAGTCACACTGGAACTGAGACACGGTCCAGAC
Pseudomonas aeruginosa	GATCTGTAG-CGGTC-TGAGAGGGTGATCCGCCACACTGGAACTGAGACACGGTCCAGAC
Acinetobacter calcoaceticus	*** ** * * ***** * * * * * * * * * * * * * * * * *

Figure 1 (continued)

Staphylococcus aureus	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	SNP378	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	SNP440
Staphylococcus epidermidis	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Streptococcus pneumoniae	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Streptococcus agalactiae	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Streptococcus pyogenes	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Enterococcus faecalis	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Enterococcus faecium	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Proteus mirabilis	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Escherichia coli	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Serratia marcescens	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Enterobacter aerogenes	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Enterobacter cloacae	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Klebsiella pneumoniae	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Pseudomonas aeruginosa	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Acinetobacter calcoaceticus	TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG		TCCTACGGGAGGCAGTAGGGAATCTTCCGCAATGGCGGAAAGCCTGACGGAGCAACG	
Staphylococcus aureus	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	SNP412	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	SNP440
Staphylococcus epidermidis	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Streptococcus pneumoniae	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Streptococcus agalactiae	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Streptococcus pyogenes	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Enterococcus faecalis	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Enterococcus faecium	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Proteus mirabilis	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Escherichia coli	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Serratia marcescens	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Enterobacter aerogenes	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Enterobacter cloacae	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Klebsiella pneumoniae	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Pseudomonas aeruginosa	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	
Acinetobacter calcoaceticus	CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT		CCGCGTGAGTGAGAAAGGCTTTCGGATCGTAAAGCTCTGTTATTAGGGAAGAACATATGT	

Figure 1 (continued)

Staphylococcus aureus	CGGTAGGCGGTTTTTAAAGTCTGATGTGAAAGCCCCACGGCTCAACCGTGGAGGGTCATTG
Staphylococcus epidermidis	CGGTAGGCGGTTTTTAAAGTCTGATGTGAAAGCCCCACGGCTCAACCGTGGAGGGTCATTG
Streptococcus pneumoniae	GCGCAGGCGGTTAGATAAGTCTGAAGTTAAAGGCTGTGGCTTAAACCATAGT-AGGCTTTTG
Streptococcus agalactiae	GCGCAGGCGGTTCTTTAAAGTCTGAAGTTAAAGGCAGTGGCTTAAACCATTTGT-ACGCTTTTG
Streptococcus pyogenes	GCGCAGGCGGTTTTTAAAGTCTGAAGTTAAAGGCATTTGGCTCAACCAATGT-ACGCTTTTG
Enterococcus faecalis	GCGCAGGCGGTTTCTTAAAGTCTGATGTGAAAGCCCCCGGCTCAACCGGGAGGGTCATTG
Enterococcus faecium	GCGCAGGCGG--TTCTTAAAGTCTGATGTGAAAGCCCCCGGCTCAACCGGGAGGGTCATTG
Proteus mirabilis	ACGCAGGCGGTCATTAAGTCAAGTGTGAAAGCCCCCGGCTCAACCTTGGAAATTCATCT
Escherichia coli	ACGCAGGCGGTTTGTAAAGTCAGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATCT
Serratia marcescens	ACGCAGGCGGTTTGTAAAGTCAGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATTT
Enterobacter aerogenes	ACGCAGGCGGTTCTGTCAGTCAAGTCGGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATTC
Enterobacter cloacae	ACGCAGGCGGTTCTGTCAGTCAAGTCGGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATTC
Klebsiella pneumoniae	ACGCAGGCGGTTCTGTCAGTCAAGTCGGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATTC
Pseudomonas aeruginosa	GCGTAGGTGGTTCAGCAAGTTGGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATCC
Acinetobacter calcoaceticus	GCGTAGGCGGCGCATTTAAAGTCAAGTCAATGTGAAATCCCCGGAGCTTAACTTGGGAAATTCATTTG
	** *** ** * * * * * * * * * * * * * * * * * *
	SNP647 SNP653
Staphylococcus aureus	GAAACTGGAAACTTCAGTGCAGAGAGGAAAGTGGAATTCATGTGTAGCGGTGAAATG
Staphylococcus epidermidis	GAAACTGGAAACTTCAGTGCAGAGAGGAAAGTGGAATTCATGTGTAGCGGTGAAATG
Streptococcus pneumoniae	GAAACTGTTTAACTTCAGTGCAGAGAGGAGAGTGGAATTCATGTGTAGCGGTGAAATG
Streptococcus agalactiae	GAAACTGGAGGACTTCAGTGCAGAGAGGAGAGTGGAATTCATGTGTAGCGGTGAAATG
Streptococcus pyogenes	GAAACTGGAGAACTTCAGTGCAGAGAGGAGAGTGGAATTCATGTGTAGCGGTGAAATG
Enterococcus faecalis	GAAACTGGAGACTTCAGTGCAGAGAGGAGAGTGGAATTCATGTGTAGCGGTGAAATG
Enterococcus faecium	GAAACTGGAGACTTCAGTGCAGAGAGGAGAGTGGAATTCATGTGTAGCGGTGAAATG
Proteus mirabilis	GAAACTGGTGGCTAGACTCTTGTAGAGGGGGTAGAATTCATGTGTAGCGGTGAAATG
Escherichia coli	GATACTGGCAAGCTTGAGTCTCGTAGAGGGGGTAGAATTCAGGTGTAGCGGTGAAATG
Serratia marcescens	GAAACTGGCAAGCTAGACTCTCGTAGAGGGGGTAGAATTCAGGTGTAGCGGTGAAATG
Enterobacter aerogenes	GAAACTGGCAGGCTAGACTCTTGTAGAGGGGGTAGAATTCAGGTGTAGCGGTGAAATG
Enterobacter cloacae	GAAACTGGCAGGCTAGACTCTTGTAGAGGGGGTAGAATTCAGGTGTAGCGGTGAAATG
Klebsiella pneumoniae	GAAACTGGCAGGCTAGACTCTTGTAGAGGGGGTAGAATTCAGGTGTAGCGGTGAAATG
Pseudomonas aeruginosa	AAACTACTAGCTAGCTACGGTAGAGGTGGTGGAAATTCCTGTGTAGCGGTGAAATG
Acinetobacter calcoaceticus	CATACTGGATGGCTAGAGTATGGAGAGGATGGTAGAATTCAGGTGTAGCGGTGAAATG
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Figure 1 (continued)

Staphylococcus aureus	CGCAGAGATATGGAGGAACACACCAGTGGCGAAGCGGACATTTCTGGTCTGTAACTGACGCTG
Staphylococcus epidermidis	CGCAGAGATATGGAGGAACACACCAGTGGCGAAGCGGACATTTCTGGTCTGTAACTGACGCTG
Streptococcus pneumoniae	CGTAGATATATGGAGGAACACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Streptococcus agalactiae	CGTAGATATATGGAGGAACACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Streptococcus pyogenes	CGTAGATATATGGAGGAACACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Enterococcus faecalis	CGTAGATATATGGAGGAACACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Enterococcus faecium	CGTAGATATATGGAGGAACACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Proteus mirabilis	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
ESCHERICHIA COLI	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Serratia marcescens	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Enterobacter aerogenes	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Enterobacter cloacae	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Klebsiella pneumoniae	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Pseudomonas aeruginosa	CGTAGATATAGGAAGCAACACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
Acinetobacter calcoaceticus	CGTAGAGATGTGGAGGAATACCGGTGGCGAAGCGGCTCTCTGGTGTAACTGACGCTG
	** *** * * ***** *** ***** **
Staphylococcus aureus	ATGTGCGAAAGCGTGGGGATCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Staphylococcus epidermidis	ATGTGCGAAAGCGTGGGGATCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Streptococcus pneumoniae	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Streptococcus agalactiae	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Streptococcus pyogenes	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Enterococcus faecalis	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Enterococcus faecium	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Proteus mirabilis	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Escherichia coli	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Serratia marcescens	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Enterobacter aerogenes	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Enterobacter cloacae	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Klebsiella pneumoniae	AGGCTCGAAAGCGTGGGAGCAACACAGGATTAGATACCCCTGGTAGTCCACGCCGTAAACG
Pseudomonas aeruginosa	AGGTACGAAAGCATGGGAGCAGAACAGGATTAGATACCCCTGGTAGTCCATGCCCGTAAACG
Acinetobacter calcoaceticus	AGGTACGAAAGCATGGGAGCAGAACAGGATTAGATACCCCTGGTAGTCCATGCCCGTAAACG
	* * * ***** **

Figure 1 (continued)

AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAATCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAATCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCAAGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTACTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTGGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTACTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTACTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTGGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTGGTCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGAAGCAACGCGAAGAACCCTTACCTGGCCCTTGACAT
AAGCGGTGGAGCATGTGTTTAAATTCGATGCAACGCGAAGAACCCTTACCTGGCCCTTGACAT

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CCTTTGACAACTCTAGAGATAGAGCTTTCCCTTCGGGGGACAAAAGTGACAGGTGGTGCA
 CCTCTGACCCCTCTAGAGATAGAGTTTTCCTTCGGGGGACAGAGTGACAGGTGGTGCA
 CCCCTTGACCGCTCTAGAGATAGAGTTTT--CCTTCGGGACAGAGGTGACAGGTGGTGCA
 CCTTTTGACCGGCTAGAGATAGGCTTTC--TCTTCGGAGCAGAAAGTGACAGGTGGTGCA
 CCCGATGCCGCTCTAGAGATAGAGTTTT--ACTTCGGTACATCGGTGACAGGTGGTGCA
 CCTTTTGACCACTCTAGAGATAGAGCTTTC--CCTTCGGGGACAAAAGTGACAGGTGGTGCA
 CCTTTTGACCACTCTAGAGATAGAGCTTCC--CCTTCGGGGGCAAAAGTGACAGGTGGTGCA
 CCCAGCGAATCCTTTAGAGATAGAGGAGTG--CCTTCGGGAAACGCTGAGACAGGTGGTGCA
 CCCACAGAACTTTCAGAGATGGATTGGTG--CCTTCGGGAACTGTGAGACAGGTGGTGCA
 CCCAGAGAACTTTCAGAGATGGATTGGTG--CCTTCGGGAACTCTGAGACAGGTGGTGCA
 CCCAGAGAACTTAGCAGAGATGCTTTGGTG--CCTTCGGGAACTCTGAGACAGGTGGTGCA
 CCCACAGAACTTTCAGAGATGGATTGGTG--CCTTCGGGAACTGTGAGACAGGTGGTGCA
 CCCACAGAACTTTCAGAGATGGATTGGTG--CCTTCGGGAACTGTGAGACAGGTGGTGCA
 GCTGTGAGAACTTTCAGAGATGGATTGGTG--CCTTCGGGAACTCAGACACAGGTGGTGCA
 ACTAGAAACTTTCAGAGATGGATTGGTG--CCTTCGGGAAATTAGATACAGGTGGTGCA

Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus pneumoniae
Streptococcus agalactiae
Streptococcus pyogenes
Enterococcus faecalis
Enterococcus faecium
Proteus mirabilis
Escherichia coli
Serratia marcescens
Enterobacter aerogenes
Enterobacter cloacae
Klebsiella pneumoniae
Pseudomonas aeruginosa
Acinetobacter calcoaceticus

Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus pneumoniae
Streptococcus agalactiae
Streptococcus pyogenes
Enterococcus faecalis
Enterococcus faecium
Proteus mirabilis
Escherichia coli
Serratia marcescens
Enterobacter aerogenes
Enterobacter cloacae
Klebsiella pneumoniae
Pseudomonas aeruginosa
Acinetobacter calcoaceticus

Figure 1 (continued)

Staphylococcus aureus	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGATTTGGGCTACACACGTGC
Staphylococcus epidermidis	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGATTTGGGCTACACACGTGC
Streptococcus pneumoniae	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGACCTGGGCTACACACGTGC
Streptococcus agalactiae	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGACCTGGGCTACACACGTGC
Streptococcus pyogenes	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGACCTGGGCTACACACGTGC
Enterococcus faecalis	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGACCTGGGCTACACACGTGC
Enterococcus faecium	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTATGACCTGGGCTACACACGTGC
Proteus mirabilis	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Escherichia coli	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Serratia marcescens	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Enterobacter aerogenes	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Enterobacter cloacae	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Klebsiella pneumoniae	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Pseudomonas aeruginosa	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC
Acinetobacter calcoaceticus	GAGGAAGGTGGGGATGACGTCAAATCATCATGCCCCCTTACGAGTAGGGCTACACACGTGC

Staphylococcus aureus	TACAATGGACATACAAAGGGCAGCGAAACCGTGAGGTCAAGCAAAATCCCATAAAGTTGT
Staphylococcus epidermidis	TACAATGGACATACAAAGGGCAGCGAAACCGTGAGGTCAAGCAAAATCCCATAAAGTTGT
Streptococcus pneumoniae	TACAATGGCTGGTACAAACGAGTCGCAAGCCGGTGACGGCAAGCTAATCTCTTAAAGCCAG
Streptococcus agalactiae	TACAATGGTTGGTACAAACGAGTCGCAAGCCGGTGACGGCAAGCTAATCTCTTAAAGCCAA
Streptococcus pyogenes	TACAATGGTTGGTACAAACGAGTCGCAAGCCGGTGACGGCAAGCTAATCTCTTAAAGCCAA
Enterococcus faecalis	TACAATGGGAAGTACAAACGAGTCGCTAGACCCGCGAGGTCAAGCAAAATCTCTTAAAGCTTC
Enterococcus faecium	TACAATGGGAAGTACAAACGAGTCGCTAGACCCGCGAGGTCAAGCAAAATCTCTTAAAGCTTC
Proteus mirabilis	TACAATGGCAGATACAAAGAGAAAGCGACCTCGCGAGAGCAAGCGGAACTCATAAAGTCTG
Escherichia coli	TACAATGGCAGATACAAAGAGAAAGCGACCTCGCGAGAGCAAGCGGAACTCATAAAGTCTG
Serratia marcescens	TACAATGGCGCATACAAAGAGAAAGCGACCTCGCGAGAGCAAGCGGAACTCATAAAGTCTG
Enterobacter aerogenes	TACAATGGCGCATACAAAGAGAAAGCGACCTCGCGAGAGCAAGCGGAACTCATAAAGTCTG
Enterobacter cloacae	TACAATGGCGCATACAAAGAGAAAGCGACCTCGCGAGAGCAAGCGGAACTCATAAAGTCTG
Klebsiella pneumoniae	TACAATGGCGCATACAAAGAGAAAGCGACCTCGCGAGAGCAAGCGGAACTCATAAAGTCTG
Pseudomonas aeruginosa	TACAATGGTGGTACAAAGGGTTGCCAAGCCCGGAGGTGGAGTAAATCCCATAAACCCGA
Acinetobacter calcoaceticus	TACAATGGTGGTACAAAGGGTTGCCAAGCCCGGAGGTGGAGTAAATCCCATAAACCCGA

Figure 1 (continued)

Staphylococcus aureus	TCTCAGTTCGGATTGTAGTCTGCAACTCGACTACATGAAGTCGGAATCGCTAGTAATCGT
Staphylococcus epidermidis	TCTCAGTTCGGATTGTAGTCTGCAACTCGACTATATGAAGTCGGAATCGCTAGTAATCGT
Streptococcus pneumoniae	TCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAATCGC
Streptococcus agalactiae	TCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAATCGC
Streptococcus pyogenes	TCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGTCGGAATCGCTAGTAATCGC
Enterococcus faecalis	TCTCAGTTCGGATTGCAGGCTGCAACTCGCCTGCATGAAGTCGGAATCGCTAGTAATCGC
Enterococcus faecium	TCTCAGTTCGGATTGCAGGCTGCAACTCGCCTGCATGAAGTCGGAATCGCTAGTAATCGC
Proteus mirabilis	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Escherichia coli	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Serratia marcescens	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Enterobacter aerogenes	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Enterobacter cloacae	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Klebsiella pneumoniae	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Pseudomonas aeruginosa	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGT
Acinetobacter calcoaceticus	TCGTAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGC
	** *** ***** * * * ***** ** * ***** *****
Staphylococcus aureus	AGATCAGCATGCTACGGTGAATACGTTCCCGGGTCTTGTACACACCGCCCGTCACACCAC
Staphylococcus epidermidis	AGATCAGCATGCTACGGTGAATACGTTCCCGGGTCTTGTACACACCGCCCGTCACACCAC
Streptococcus pneumoniae	GGATCAGCACGCCGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAC
Streptococcus agalactiae	GGATCAGCACGCCGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAC
Streptococcus pyogenes	GGATCAGCACGCCGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAC
Enterococcus faecalis	GGATCAGCACGCCGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAC
Enterococcus faecium	GGATCAGCACGCCGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAC
Proteus mirabilis	AGATCAGCATGCTACGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Escherichia coli	AGATCAGCATGCTACGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Serratia marcescens	AGATCAGCATGCTACGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Enterobacter aerogenes	AGATCAGCATGCTACGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Enterobacter cloacae	AGATCAGCATGCTACGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Klebsiella pneumoniae	GAATCAGCATGCTACGGTGAATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Pseudomonas aeruginosa	GGATCAGCATGCCCC--GGTGATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
Acinetobacter calcoaceticus	GGATCAGCATGCCCC--GGTGATACGTTCCCGGGCTTGTACACACCGCCCGTCACACCAT
	***** * * * ***** * * ***** *****

Figure 1 (continued)

GGAGAGTTTGTAAACACCCGAAGCCGGTGGAGTAACTTTTAGGAGCTAGCCGTGAAAGGTG
GGAGAGTTTGTAAACACCCGAAGCCGGTGGAGTAACTTT-TGGAGCTAGCCGTGAAAGGTG
GGAGAGTTTGTAAACACCCGAAGTCGGTGGAGTAAACCG-TAAGGAGCCAGCCGCTAAAGTG
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GGAGAGTTTGTAAACACCCGAAGTCGGTGGAGTAACTTTTGGAGCCAGCCGCTAAAGTG
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GGGAGTGGGTTGCAAAAAGAGTAGGTAGCTTAACTTTC-GGAGGGCGCTTACCACTTG
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GGGGAGTGGGTTGCTCAGAAGTAGCTAGCTTAAACCGCA-AGGGGAGCGGTTACCAAGGAG
GGGGAGTTTGTGCACCAGAAGTAGGTAGCTTAAACCGCA-AGGAGGAGCGCTTACCAAGGTG

Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus pneumoniae
Streptococcus agalactiae
Streptococcus pyogenes
Enterococcus faecalis
Enterococcus faecium
Proteus mirabilis
Escherichia coli
Serratia marcescens
Enterobacter aerogenes
Enterobacter cloacae
Klebsiella pneumoniae
Pseudomonas aeruginosa
Acinetobacter calcoaceticus

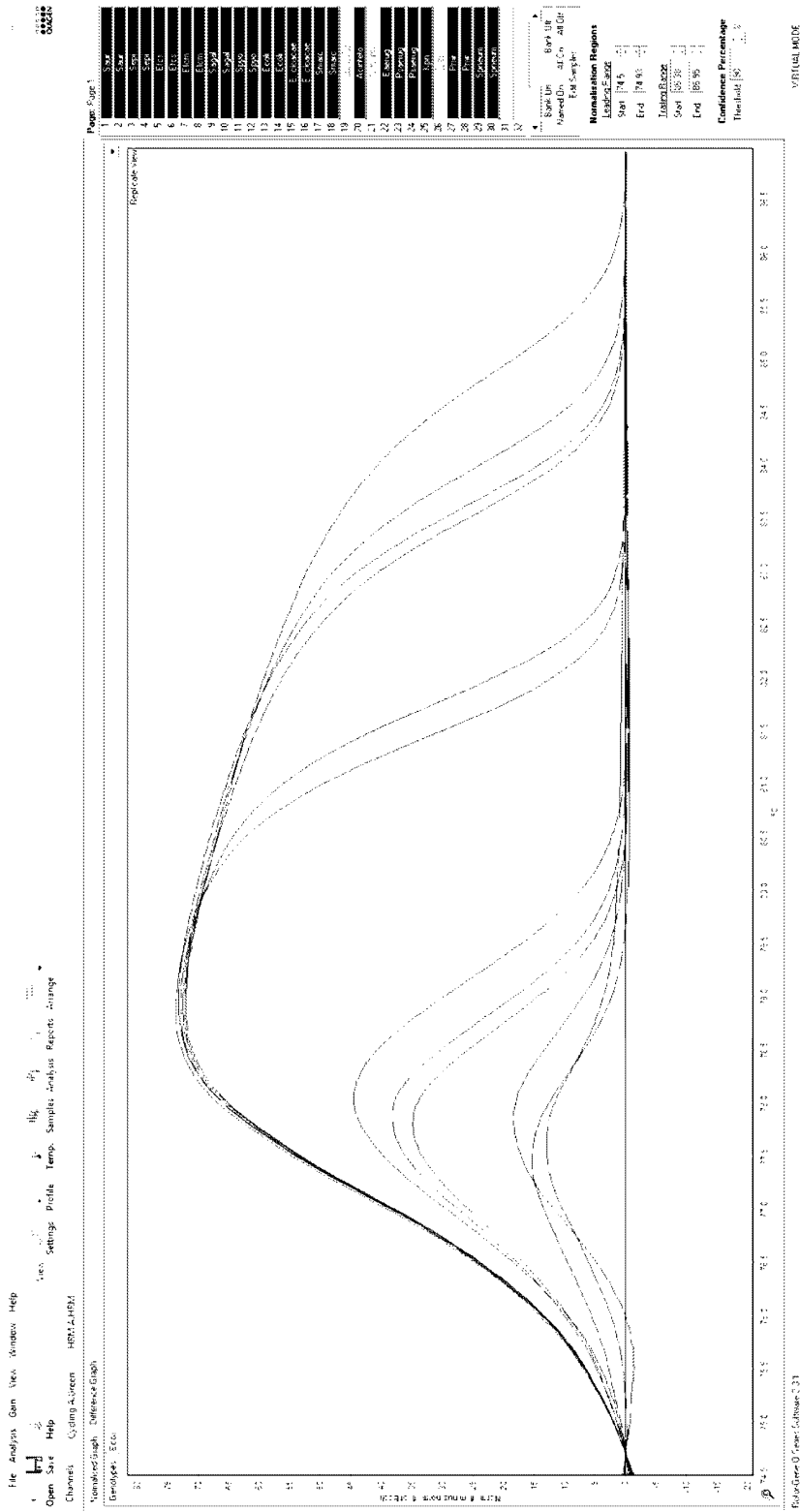
Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus pneumoniae
Streptococcus agalactiae
Streptococcus pyogenes
Enterococcus faecalis
Enterococcus faecium
Proteus mirabilis
Escherichia coli
Serratia marcescens
Enterobacter aerogenes
Enterobacter cloacae
Klebsiella pneumoniae
Pseudomonas aeruginosa
Acinetobacter calcoaceticus

Figure 1 (continued)

Staphylococcus aureus	ACCTCCCTTTCT
Staphylococcus epidermidis	ACCTCCCTTTCT
Streptococcus pneumoniae	-----
Streptococcus agalactiae	-----
Streptococcus pyogenes	ACCTCCCTTT--
Enterococcus faecalis	-----
Enterococcus faecium	ACCTCCCTTT--
Proteus mirabilis	ACCTCCCTTA--
Escherichia coli	ACCTCCCTTA--
Serratia marcescens	-----
Enterobacter aerogenes	-----
Enterobacter cloacae	ACCTCCCTTG--
Klebsiella pneumoniae	ACCTCCCTTT--
Pseudomonas aeruginosa	ACCTCCCTTA--
Acinetobacter calcoaceticus	-----

Figure 1 (continued)





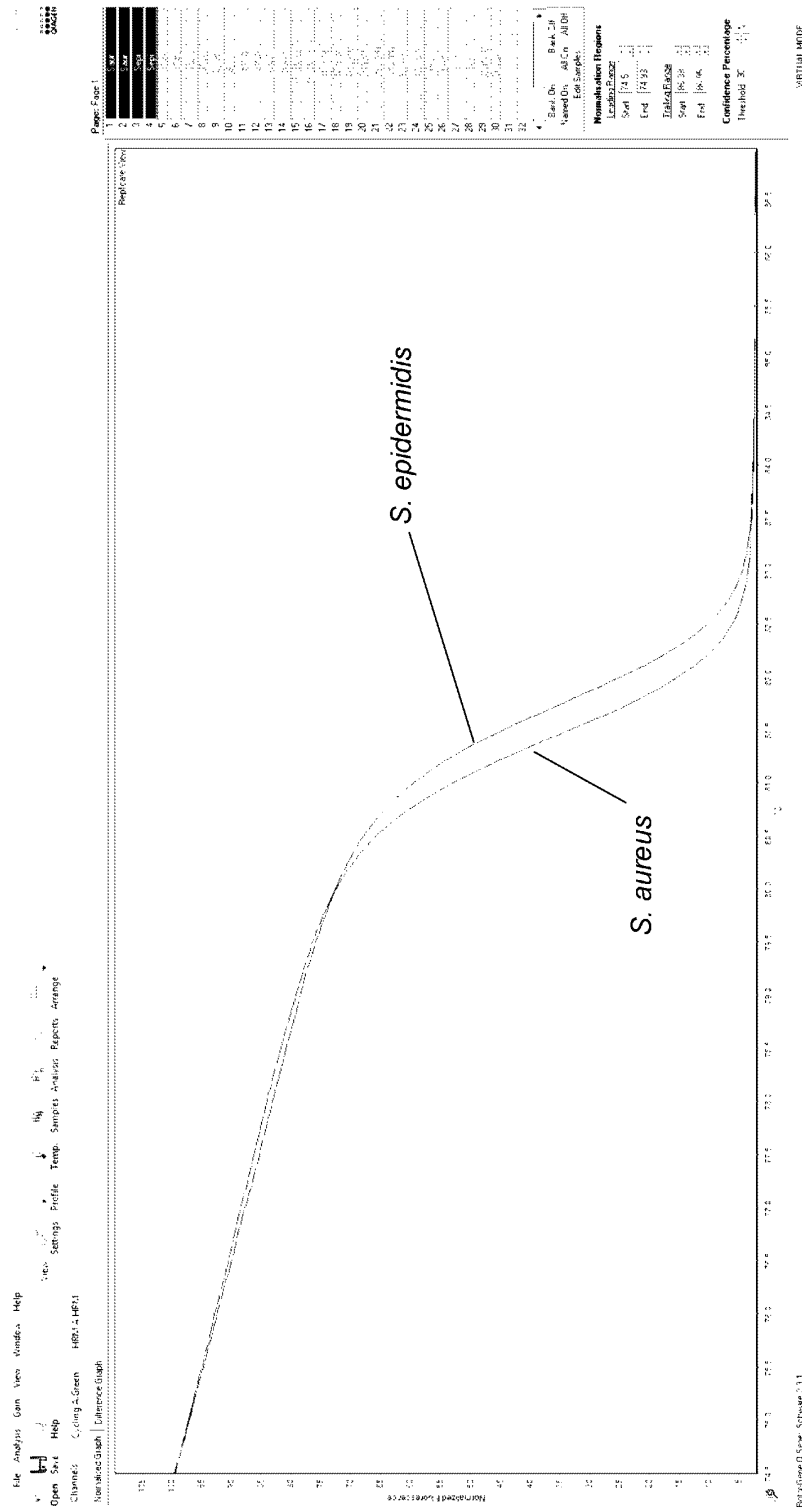


Figure 4

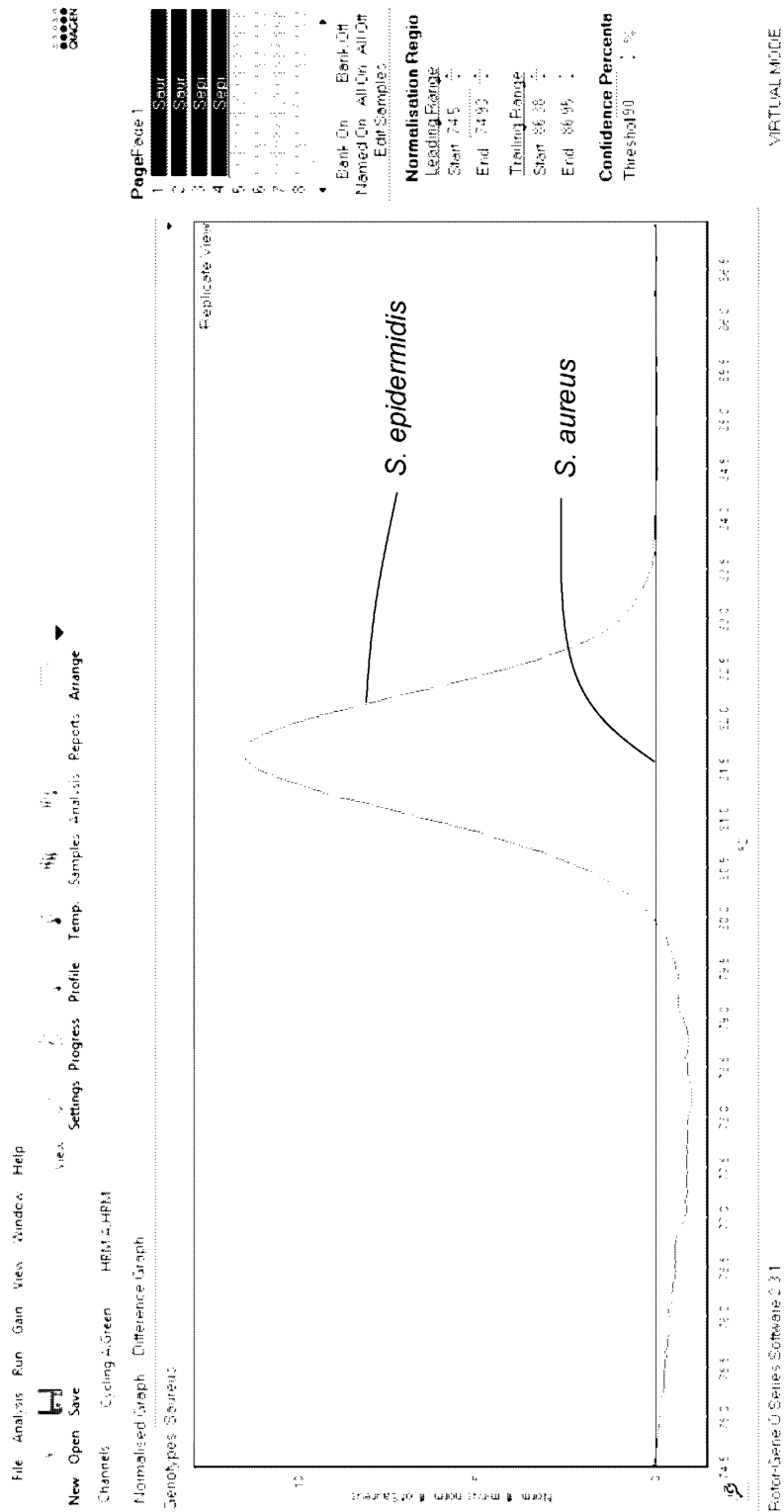


Figure 5

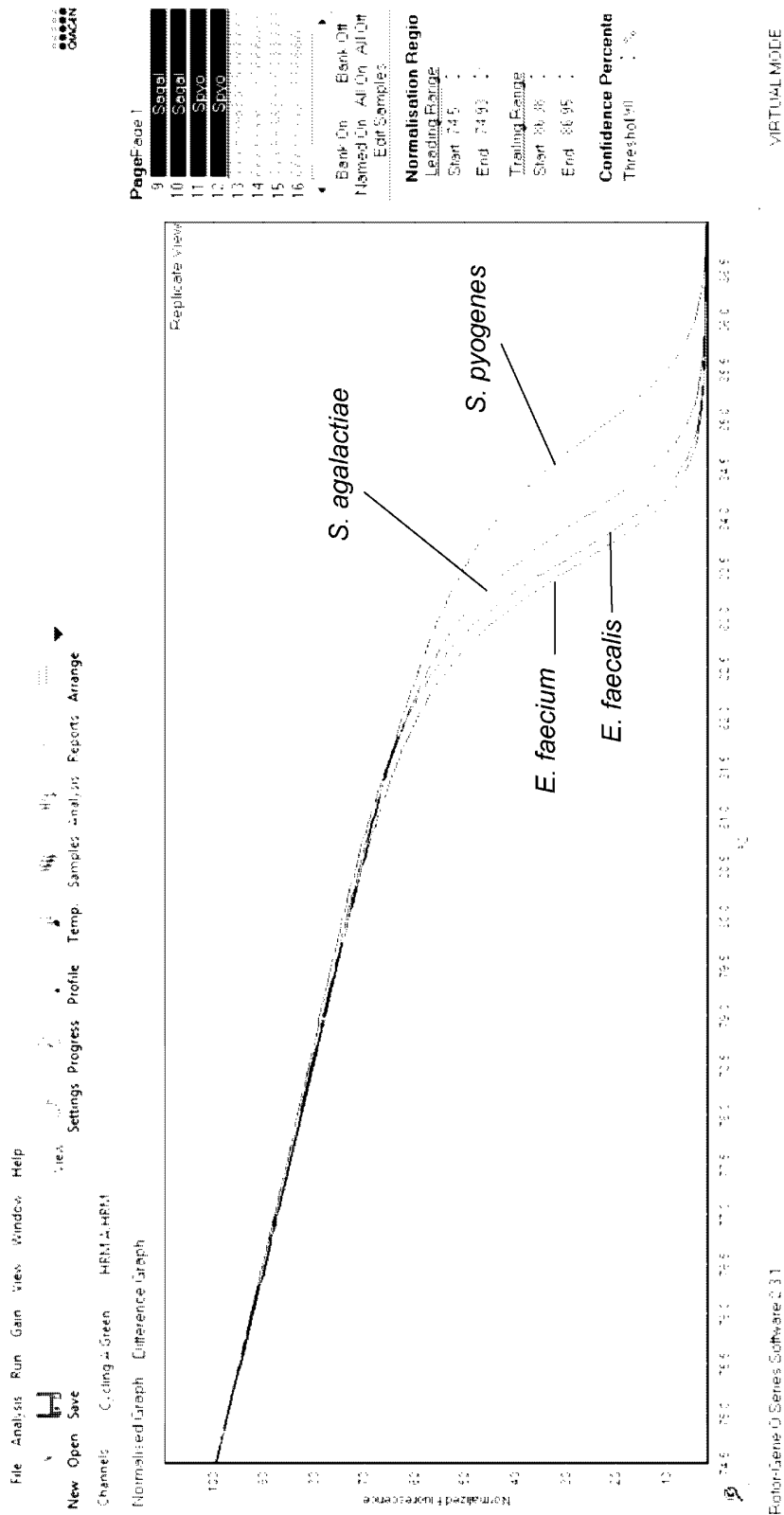


Figure 6

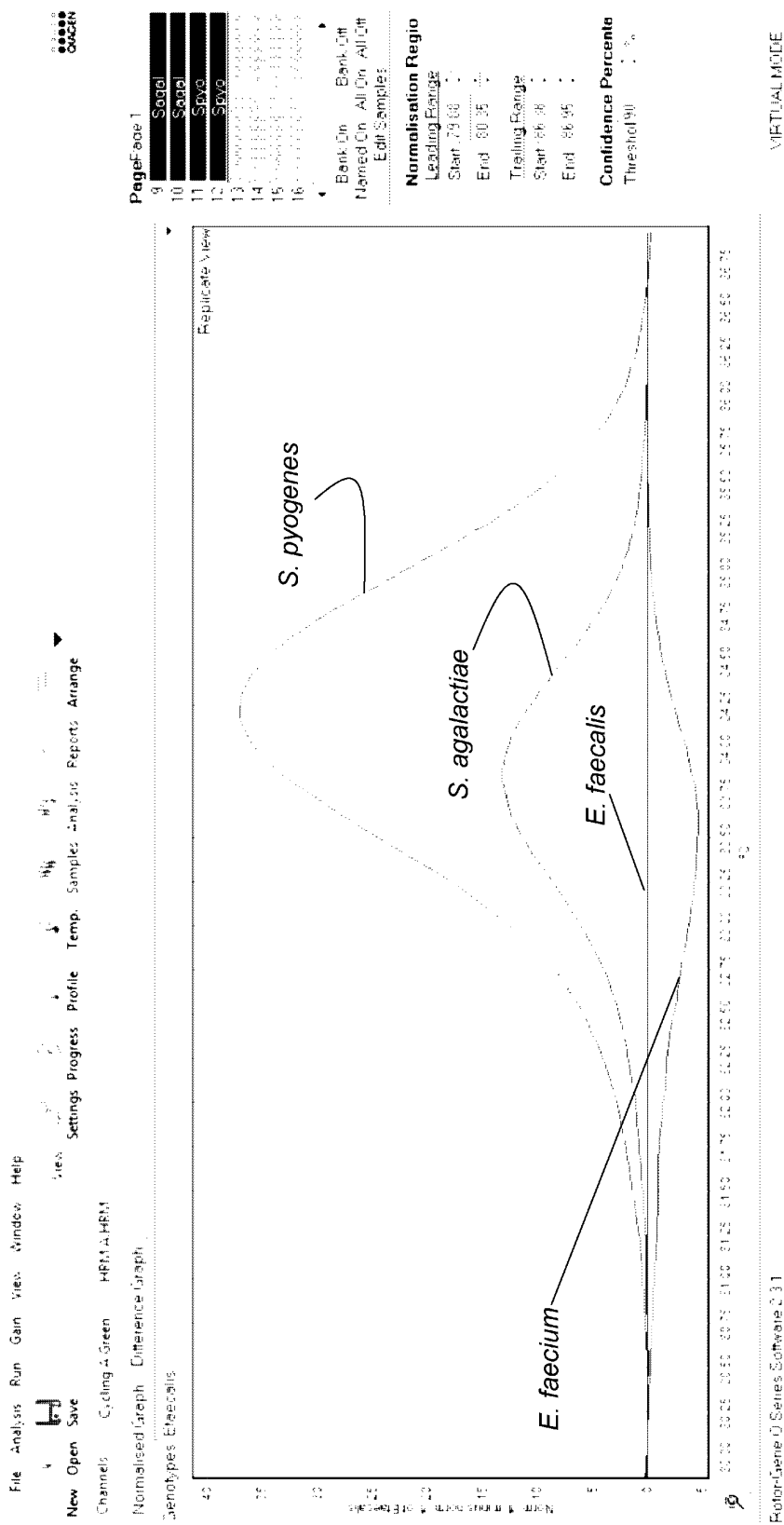


Figure 7

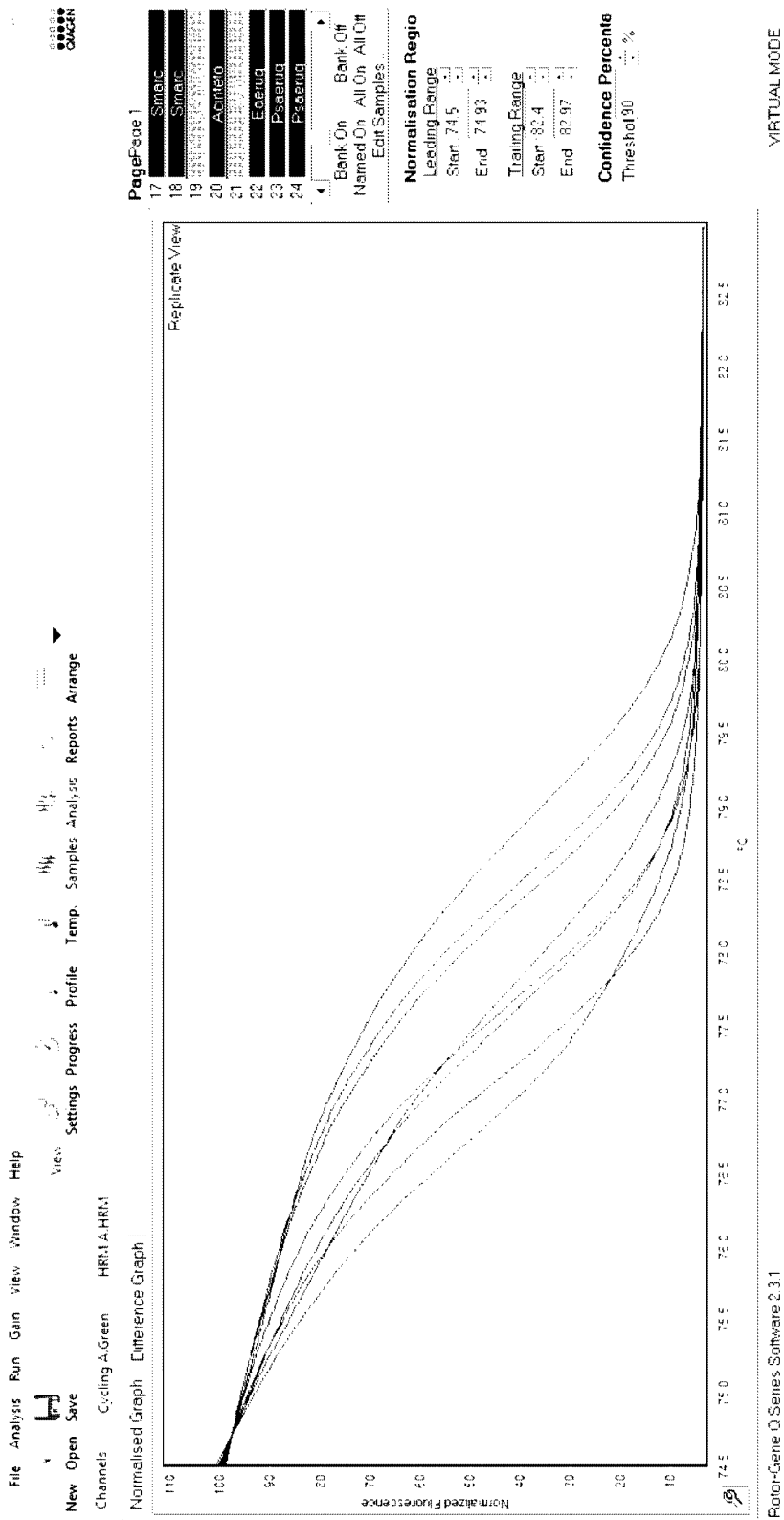
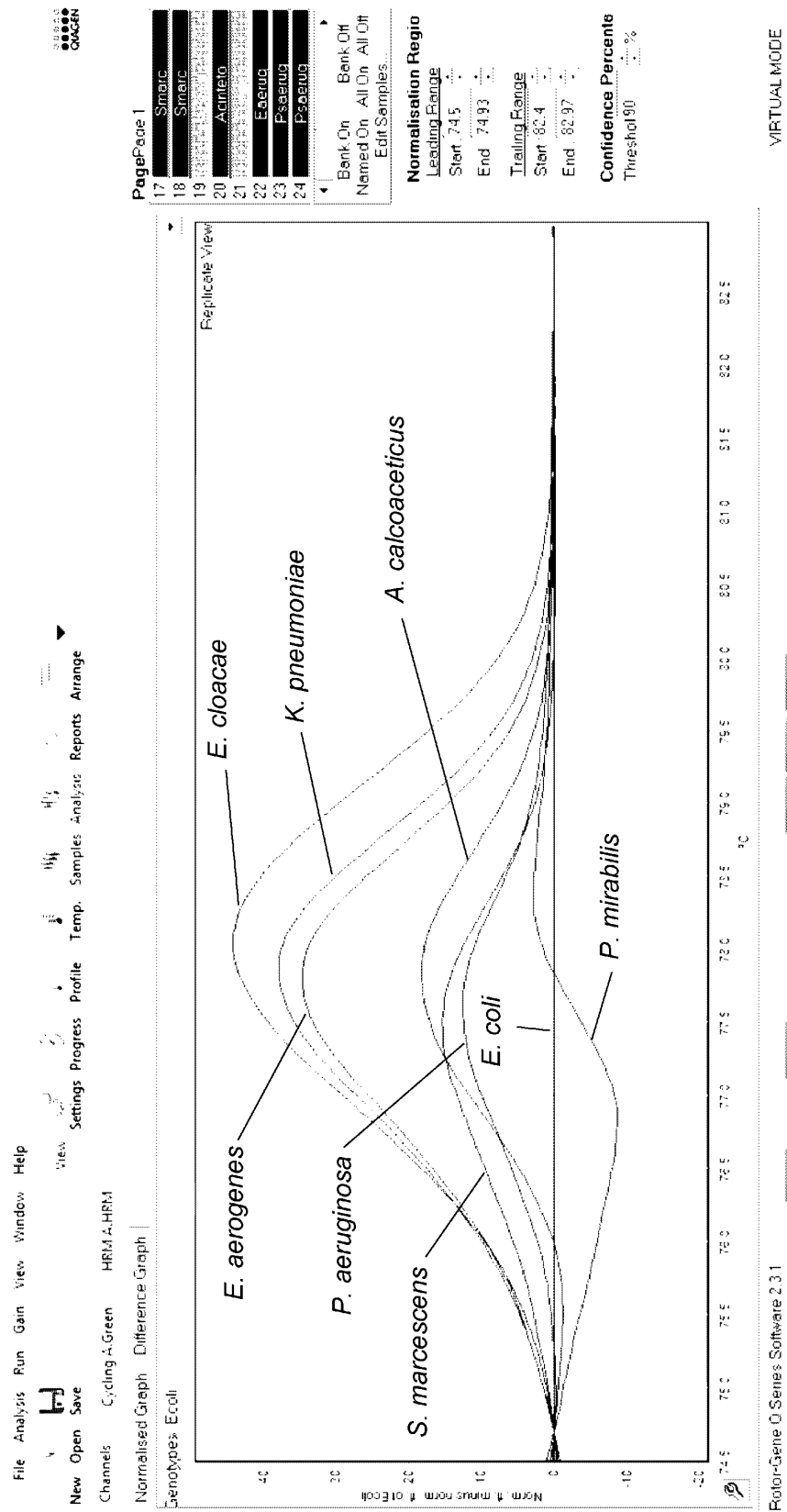


Figure 8



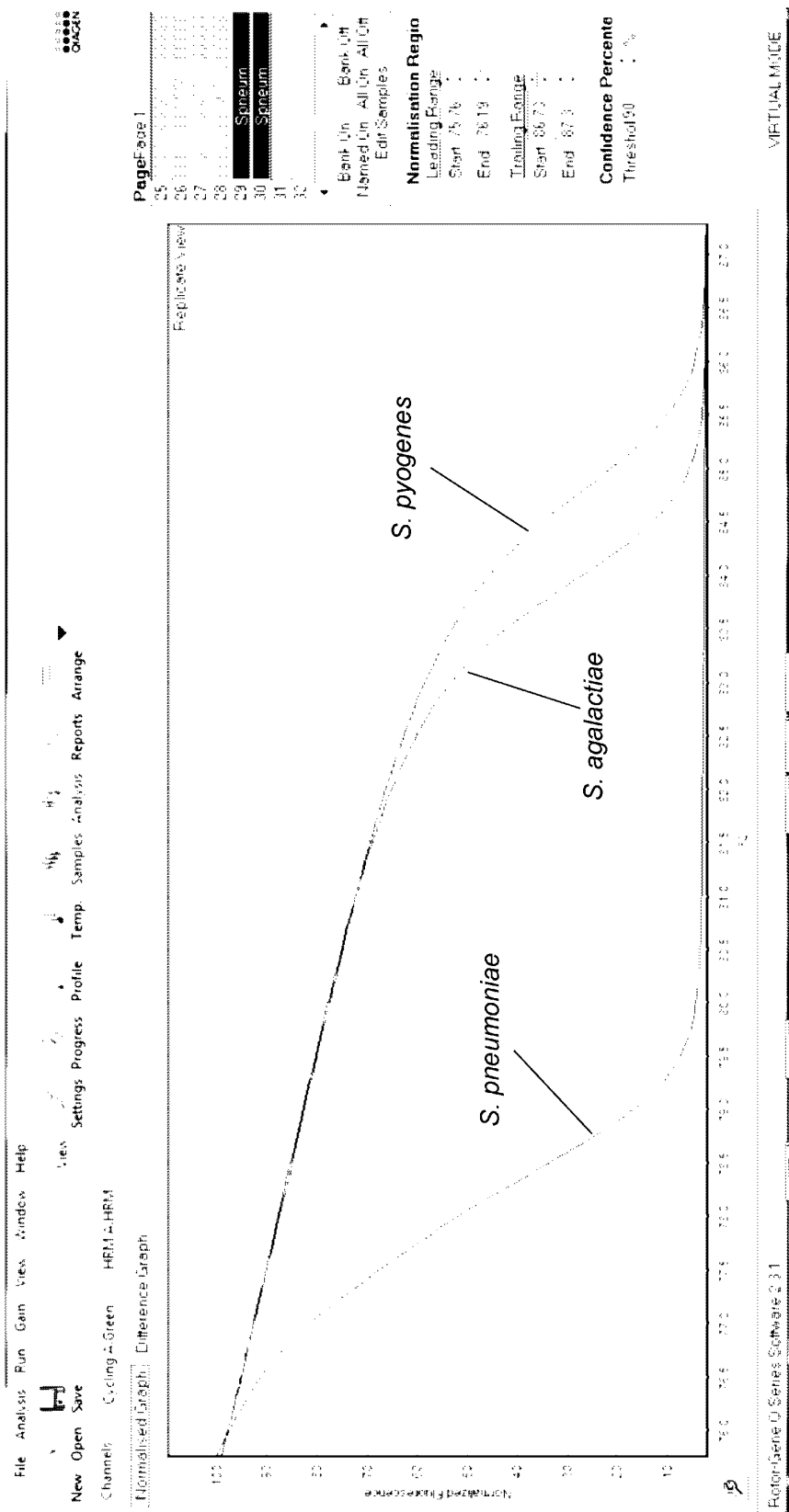


Figure 10

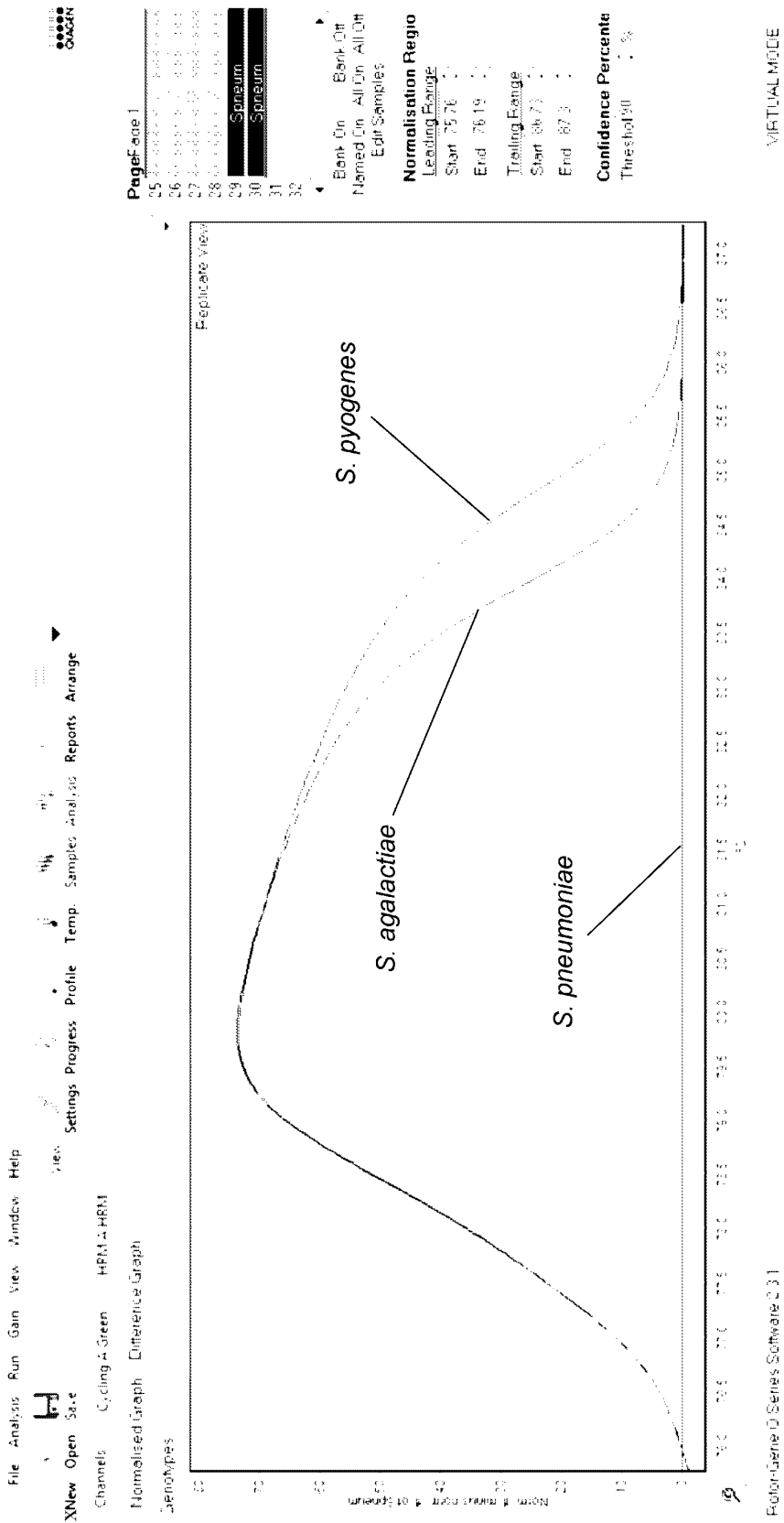


Figure 11

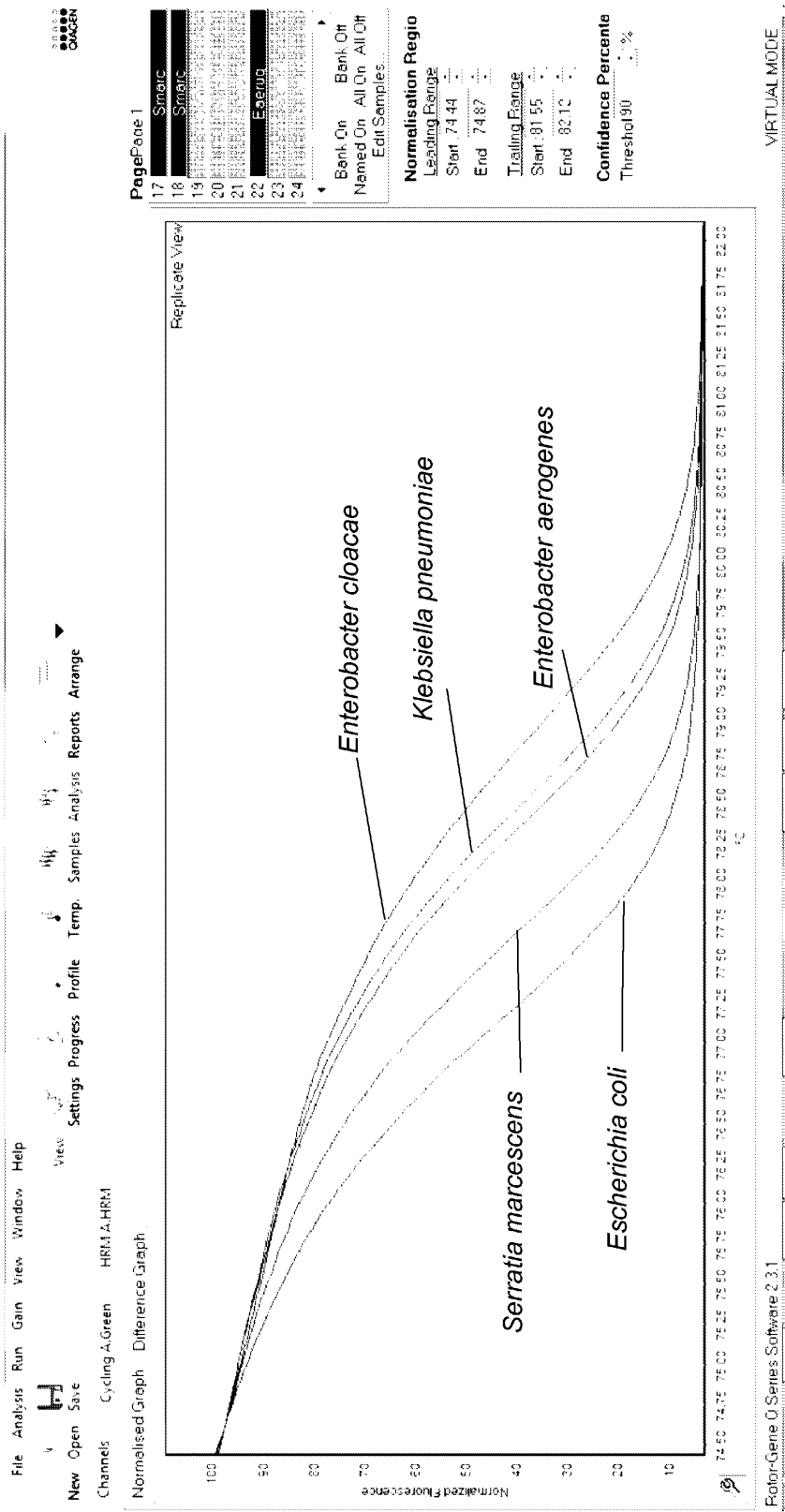


Figure 12

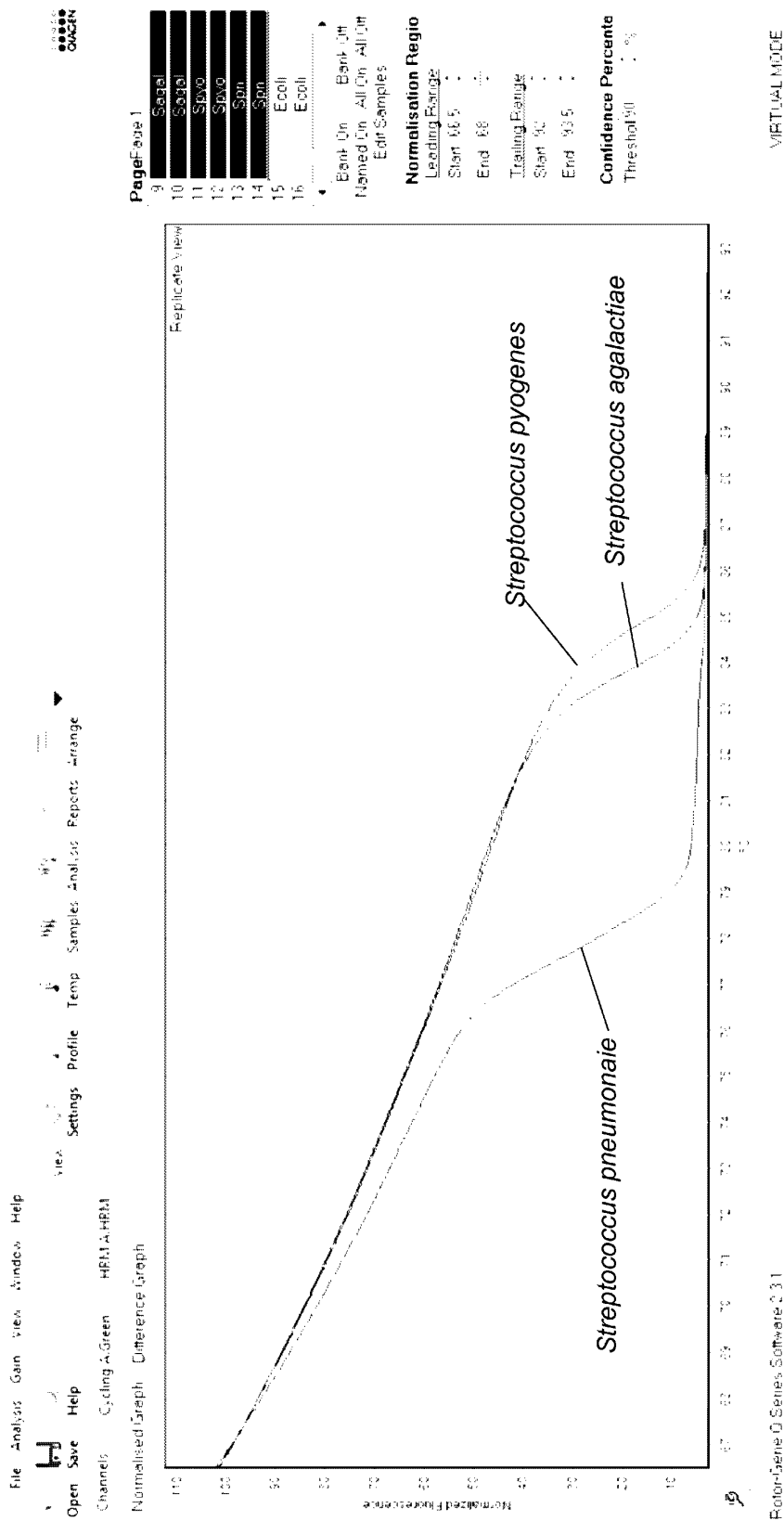


Figure 13