

Discrimination of *Bacillus anthracis* from Closely Related Microorganisms by Analysis of 16S and 23SrRNA with Oligonucleotide Microchip

Technology available for licensing: The present invention relates to methods and compositions for using nucleotide sequence variations of 16S and 23S rRNA within the *B. cereus* group to discriminate a highly infectious bacterium *B. anthracis* from closely related microorganisms. Sequence variations in the 16S and 23S rRNA of the *B. cereus* subgroup including *B. anthracis* are utilized to construct an array that can detect these sequence variations through selective hybridizations and discriminate *B. cereus* group that includes *B. anthracis*. Discrimination of single base differences in rRNA was achieved with a microchip during analysis of *B. cereus* group isolates from both single and in mixed samples, as well as identification of polymorphic sites. Successful use of a microchip to determine the appropriate subgroup classification using eight reference microorganisms from the *B. cereus* group as a study set, was demonstrated.

IN-99-088

US Patent No.: [7,303,874](#)

Copyright/Patent Case Number	Title
SF-06-111	fasta_exclude
SF-06-111b	remove_common_gaps
SF-06-112	hybinfo
SF-06-112b	nwk_arb_apply
SF-06-112c	sname_subst V2
SF-06-112d	1miss
SF-06-112e	95margin V2
SF-07-046	arb_tree_32
SF-07-046b	complement
SF-07-046c	nwk2arb
SF-07-046d	pqfilter
SF-07-046e	requalify
SF-07-046f	virt_hyb
SF-07-107	reverse
SF-07-107b	overlap_equ
SF-07-107c	overlap_filter_grad
SF-07-107d	overlap_collect
SF-07-108	NWK lim
SF-07-108b	nwk_num
SF-07-108c	nwk_num_strip
SF-07-108d	nwk_tree_split
SF-07-108e	nwk_tree_merge
SF-07-108f	nwk_narb_pct