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	BVH11-2 SP64	BVH11 SP63	BVH11 JNR.7/87	BVH11-2 JNR.7/87	BVH11 WU2	BVH11-2 WU2	BVH11 A66	BVH11-2 A66	BVH11 P4241	BVH11-2 P4241	BVH11 Rx-1	BVH11-2 Rx-1	
BVH11 SP64	I 81% S 86%	I 88% S 90%	I 88% S 91%	I 82% S 87%	I 80% S 85%	I 80% S 85%	I 80% S 85%	I 80% S 85%	I 80% S 85%	I 80% S 85%	I 88% S 91%	I 81% S 85%	
BVH11-2 SP64		I 87% S 90%	I 87% S 90%	I 98% S 98%	I 95% S 96%	I 96% S 97%	I 95% S 96%	I 96% S 97%	I 95% S 96%	I 96% S 97%	I 87% S 90%	I 94% S 95%	
BVH11 SP63			I 96% S 96%	I 88% S 91%	I 88% S 91%	I 87% S 90%	I 88% S 91%	I 87% S 90%	I 88% S 91%	I 87% S 90%	I 97% S 97%	I 89% S 91%	
BVH11 JNR.7/87				I 87% S 90%	I 87% S 91%	I 86% S 90%	I 87% S 91%	I 86% S 90%	I 87% S 91%	I 86% S 90%	I 96% S 96%	I 88% S 90%	
BVH11-2 JNR.7/87					I 96% S 97%	I 97% S 98%	I 96% S 97%	I 97% S 98%	I 96% S 97%	I 97% S 98%	I 87% S 90%	I 94% S 95%	
BVH11 WU2						I 98% S 98%	I 92% S 94%	I 98% S 98%	I 99% S 99%	I 98% S 98%	I 87% S 91%	I 92% S 94%	
BVH11-2 WU2							I 98% S 98%	I 99% S 99%	I 98% S 98%	I 99% S 99%	I 86% S 90%	I 93% S 95%	
BVH11 A66								I 99% S 99%	I 100%	I 99% S 99%	I 87% S 91%	I 92% S 94%	
BVH11-2 A66									I 99% S 99%	I 99% S 99%	I 86% S 90%	I 93% S 95%	
BVH11 P4241										I 99% S 99%	I 87% S 91%	I 92% S 94%	
BVH11-2 P4241											I 86% S 90%	I 93% S 95%	
BVH11 Rx-1												I 91% S 92%	

(57) Abstract

Streptococcus proteins and polynucleotides encoding them are disclosed. Said proteins are antigenic and therefore useful vaccine components for the prophylaxis or therapy of streptococcus infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting streptococcus bacterial infection.