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[Continued on next page]

(54) Title: VACCINES AND VACCINE COMPONENTS FOR INHIBITION OF MICROBIAL CELLS

FIG. 1A

Comparison of Methanobacteriales genomes

Methanogen	Mb	ORFs	%G+C	rRNAs	tRNAs
<i>Methanobrevibacter ruminantium</i> M1 ^a	2.9	2239	32.6	2	59
<i>Methanobrevibacter smithii</i> PS ^b	1.9	1795	31.0	2	34
<i>Methanothermobacter thermoautotrophicus</i> ΔH ^c	1.8	1873	49.5	2	39
<i>Methanosphaera stadtmanae</i> DSM3091 ^d	1.8	1534	27.6	4	40

^a genome size and number of ORFs are based on analysis of the single contig M.^b *ruminantium* draft genome sequence^c Samuel et al., 2007^d Smith et al., 1997^e Fricke et al., 2006

FIG. 1B

M. ruminantium draft genome statistics

Genome size (bp)	2937347
Open reading frames	2239
Proteins with trans-membrane domains	503 (22.5)
Terminator structures	334 (14.9)
TIGRFams	2304
Pfams	3315
COGs	1834

^a Numbers in parentheses indicate the feature as a % of the total ORF number

(57) Abstract: The invention encompasses components from microbial cells which are useful for antibody production, including peptides, polypeptides comprising these peptides, polynucleotides which encode these peptides or polypeptides, and antibodies directed to these peptides, polypeptides, or polynucleotides. The invention also encompasses to expression vectors and host cells for producing these peptides, polypeptides, polynucleotides, and antibodies. The invention further encompasses methods and compositions, especially vaccine compositions, for detecting, targeting, and inhibiting microbial cells, especially methanogen cells, using one or more of the disclosed peptides, polypeptides, polynucleotides, antibodies, expression vectors, and host cells.

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NCBI GenPept Accession Number ABQ87219; 21 June 2007 & SAMUEL, B. S. <i>et al.</i> "Genomic and metabolic adaptations of Methanobrevibacter smithii to the human gut", Proc. Natl. Acad. Sci. U.S.A. (2007), 104(25), 10643-10648 See sequence.	2, 13, 17, 22
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X	NCBI GenPept Accession Number ABQ87512; 21 June 2007 & SAMUEL, B. S. <i>et al.</i> "Genomic and metabolic adaptations of Methanobrevibacter smithii to the human gut", Proc. Natl. Acad. Sci. U.S.A. (2007), 104(25), 10643-10648 See sequence.	5, 20

 Further documents are listed in the continuation of Box C
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* Special categories of cited documents:	
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NCBI GenPept Accession Number ABQ87815; 21 June 2007 & SAMUEL, B. S. <i>et al.</i> "Genomic and metabolic adaptations of <i>Methanobrevibacter smithii</i> to the human gut", Proc. Natl. Acad. Sci. U.S.A. (2007), 104(25), 10643-10648 See sequence.	6, 15, 21, 24
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X	US 2006/0068386 A1 (SLESAREV, A. <i>et al.</i>) 30 March 2006 See sequences; page 3, paragraph 0059; page 3, paragraphs 0060, 0061; page 4, paragraph 0082; page 3, paragraph 0076-page 4, paragraph 0079; Examples; claims 7, 10, 20, 23, 26.	2-6, 13-15, 17-24, 30-36, 39-54, 57, 60
A	WO 1995/011041 A1 (COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION) 27 April 1995 See whole document.	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	2006/0068386	AU	2003222249	AU	2003279696	US	2006234227
		WO	2003/076575	WO	2004/013279		
WO	1995/011041	AU	79845/94	BR	9407841	EP	0724454
		NZ	274770	US	6036950	ZA	9408204

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX