

SEQUENCE LISTING

<110> Henkel AG & Co. KGaA

<120> Leistungsverbesserte Proteasen und Wasch- und Reinigungsmittel
enthaltend diese Proteasen

<130> H 07715

<160> 4

<170> PatentIn version 3.1

<210> 1

<211> 810

<212> DNA

<213> Bacillus gibsonii DSM 14391

<220>

<221> CDS

<222> (1)..(810)

<223>

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cat	aat	cgt	gga	ata	aca	gga	tct	gga	gtt	aaa	gtc	gct	ata	ctt	gat	96
His	Asn	Arg	Gly	Ile	Thr	Gly	Ser	Gly	Val	Lys	Val	Ala	Ile	Leu	Asp	
			20					25					30			

aca	ggt	ata	gct	cag	cat	agt	gat	tta	acc	att	cgt	ggg	gga	gca	agc	144
Thr	Gly	Ile	Ala	Gln	His	Ser	Asp	Leu	Thr	Ile	Arg	Gly	Gly	Ala	Ser	
		35					40					45				

ttt	gta	cca	gga	gag	tca	aca	acg	gct	gat	cta	aat	ggt	cat	ggt	act	192
Phe	Val	Pro	Gly	Glu	Ser	Thr	Thr	Ala	Asp	Leu	Asn	Gly	His	Gly	Thr	
	50					55					60					

cac	gtt	gct	gga	aca	gtg	gcc	gct	ctt	aat	aat	tca	att	ggt	gtg	atc	240
His	Val	Ala	Gly	Thr	Val	Ala	Ala	Leu	Asn	Asn	Ser	Ile	Gly	Val	Ile	
65					70				75					80		

ggt	gtg	gca	cca	agt	gct	gac	cta	tac	gct	gta	aag	gta	tta	gga	gca	288
Gly	Val	Ala	Pro	Ser	Ala	Asp	Leu	Tyr	Ala	Val	Lys	Val	Leu	Gly	Ala	
				85				90					95			

aat	ggt	aga	gga	agc	gtg	agt	ggg	att	gct	caa	ggt	cta	gag	tgg	gct	336
Asn	Gly	Arg	Gly	Ser	Val	Ser	Gly	Ile	Ala	Gln	Gly	Leu	Glu	Trp	Ala	
			100				105						110			

gca	acg	aat	aac	atg	cat	att	gca	aac	atg	agt	ctc	ggt	agt	gat	gca	384
Ala	Thr	Asn	Asn	Met	His	Ile	Ala	Asn	Met	Ser	Leu	Gly	Ser	Asp	Ala	
		115					120					125				

cct	agc	act	aca	tta	gag	cgt	gca	gtt	aac	tat	gcg	aca	agc	cgt	gga	432
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Pro	Ser	Thr	Thr	Leu	Glu	Arg	Ala	Val	Asn	Tyr	Ala	Thr	Ser	Arg	Gly		
130						135					140						
ggt	ctc	gtc	att	gcg	gct	act	ggt	aac	aat	ggt	act	ggt	tcc	att	ggc	480	
Val	Leu	Val	Ile	Ala	Ala	Thr	Gly	Asn	Asn	Gly	Thr	Gly	Ser	Ile	Gly		
145					150					155					160		
tac	cca	gct	cgt	tat	gca	aac	gca	atg	gct	gta	gga	gcg	act	gac	caa	528	
Tyr	Pro	Ala	Arg	Tyr	Ala	Asn	Ala	Met	Ala	Val	Gly	Ala	Thr	Asp	Gln		
				165					170					175			
aac	aac	aga	cgt	gcg	agc	ttt	tct	caa	tat	ggc	aca	gga	att	gat	att	576	
Asn	Asn	Arg	Arg	Ala	Ser	Phe	Ser	Gln	Tyr	Gly	Thr	Gly	Ile	Asp	Ile		
			180					185					190				
ggt	gca	cct	ggt	ggt	gga	att	caa	agc	aca	tac	cta	aat	aat	agc	tat	624	
Val	Ala	Pro	Gly	Val	Gly	Ile	Gln	Ser	Thr	Tyr	Leu	Asn	Asn	Ser	Tyr		
		195					200					205					
gct	agt	atg	cct	gga	aca	tca	atg	gct	aca	cct	cat	ggt	gct	gga	gta	672	
Ala	Ser	Met	Pro	Gly	Thr	Ser	Met	Ala	Thr	Pro	His	Val	Ala	Gly	Val		
	210					215					220						
gct	gcg	ctt	ggt	aaa	caa	aaa	aat	cca	tct	tgg	aat	gcg	act	caa	att	720	
Ala	Ala	Leu	Val	Lys	Gln	Lys	Asn	Pro	Ser	Trp	Asn	Ala	Thr	Gln	Ile		
225					230					235					240		
cgt	aat	cat	ttg	aaa	aat	act	gcg	acg	aat	cta	gga	aac	tca	tct	caa	768	
Arg	Asn	His	Leu	Lys	Asn	Thr	Ala	Thr	Asn	Leu	Gly	Asn	Ser	Ser	Gln		
				245					250					255			
ttt	ggt	agt	gga	cta	ggt	aat	gca	gat	gca	gca	acg	cgc	taa			810	
Phe	Gly	Ser	Gly	Leu	Val	Asn	Ala	Asp	Ala	Ala	Thr	Arg					
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 <212> PRT
 <213> Bacillus gibsonii DSM 14391

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Gln	Gln	Thr	Val	Pro	Trp	Gly	Ile	Thr	Arg	Val	Gln	Ala	Pro	Thr	Val
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His	Asn	Arg	Gly	Ile	Thr	Gly	Ser	Gly	Val	Lys	Val	Ala	Ile	Leu	Asp
			20					25					30		
Thr	Gly	Ile	Ala	Gln	His	Ser	Asp	Leu	Thr	Ile	Arg	Gly	Gly	Ala	Ser
		35					40					45			
Phe	Val	Pro	Gly	Glu	Ser	Thr	Thr	Ala	Asp	Leu	Asn	Gly	His	Gly	Thr
	50						55				60				

His Val Ala Gly Thr Val Ala Ala Leu Asn Asn Ser Ile Gly Val Ile
65 70 75 80

Gly Val Ala Pro Ser Ala Asp Leu Tyr Ala Val Lys Val Leu Gly Ala
85 90 95

Asn Gly Arg Gly Ser Val Ser Gly Ile Ala Gln Gly Leu Glu Trp Ala
100 105 110

Ala Thr Asn Asn Met His Ile Ala Asn Met Ser Leu Gly Ser Asp Ala
115 120 125

Pro Ser Thr Thr Leu Glu Arg Ala Val Asn Tyr Ala Thr Ser Arg Gly
130 135 140

Val Leu Val Ile Ala Ala Thr Gly Asn Asn Gly Thr Gly Ser Ile Gly
145 150 155 160

Tyr Pro Ala Arg Tyr Ala Asn Ala Met Ala Val Gly Ala Thr Asp Gln
165 170 175

Asn Asn Arg Arg Ala Ser Phe Ser Gln Tyr Gly Thr Gly Ile Asp Ile
180 185 190

Val Ala Pro Gly Val Gly Ile Gln Ser Thr Tyr Leu Asn Asn Ser Tyr
195 200 205

Ala Ser Met Pro Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Val
210 215 220

Ala Ala Leu Val Lys Gln Lys Asn Pro Ser Trp Asn Ala Thr Gln Ile
225 230 235 240

Arg Asn His Leu Lys Asn Thr Ala Thr Asn Leu Gly Asn Ser Ser Gln
245 250 255

Phe Gly Ser Gly Leu Val Asn Ala Asp Ala Ala Thr Arg
260 265

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<211> 269
<212> PRT
<213> Bacillus lentus

H 07715 PCT/EP

4

<400> 3

Ala Gln Ser Val Pro Trp Gly Ile Ser Arg Val Gln Ala Pro Ala Ala
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His Asn Arg Gly Leu Thr Gly Ser Gly Val Lys Val Ala Val Leu Asp
 20 25 30

Thr Gly Ile Ser Thr His Pro Asp Leu Asn Ile Arg Gly Gly Ala Ser
 35 40 45

Phe Val Pro Gly Glu Pro Ser Thr Gln Asp Gly Asn Gly His Gly Thr
 50 55 60

His Val Ala Gly Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly Val Leu
 65 70 75 80

Gly Val Ala Pro Ser Ala Glu Leu Tyr Ala Val Lys Val Leu Gly Ala
 85 90 95

Asp Gly Arg Gly Ala Ile Ser Ser Ile Ala Gln Gly Leu Glu Trp Ala
 100 105 110

Gly Asn Asn Gly Met His Val Ala Asn Leu Ser Leu Gly Ser Pro Ser
 115 120 125

Pro Ser Ala Thr Leu Glu Gln Ala Val Asn Ser Ala Thr Ser Arg Gly
 130 135 140

Val Leu Val Val Ala Ala Ser Gly Asn Ser Gly Ala Ser Ser Ile Ser
 145 150 155 160

Tyr Pro Ala Arg Tyr Ala Asn Ala Met Ala Val Gly Ala Thr Asp Gln
 165 170 175

Asn Asn Asn Arg Ala Ser Phe Ser Gln Tyr Gly Ala Gly Leu Asp Ile
 180 185 190

Val Ala Pro Gly Val Asn Val Gln Ser Thr Tyr Pro Gly Ser Thr Tyr
 195 200 205

Ala Ser Leu Asn Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Ala
 210 215 220

Ala Ala Leu Val Lys Gln Lys Asn Pro Ser Trp Ser Asn Val Gln Ile
 225 230 235 240

Arg Asn His Leu Lys Asn Thr Ala Thr Ser Leu Gly Ser Thr Asn Leu
 245 250 255

Tyr Gly Ser Gly Leu Val Asn Ala Glu Ala Ala Thr Arg
 260 265

<210> 4
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 <212> PRT
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<400> 4

Ala Gln Ser Val Pro Trp Gly Ile Ser Arg Val Gln Ala Pro Ala Ala
 1 5 10 15

His Asn Arg Gly Leu Thr Gly Ser Gly Val Lys Val Ala Val Leu Asp
 20 25 30

Thr Gly Ile Ser Thr His Pro Asp Leu Asn Ile Arg Gly Gly Ala Ser
 35 40 45

Phe Val Pro Gly Glu Pro Ser Thr Gln Asp Gly Asn Gly His Gly Thr
 50 55 60

His Val Ala Gly Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly Val Leu
 65 70 75 80

Gly Val Ala Pro Ser Ala Glu Leu Tyr Ala Val Lys Val Leu Gly Ala
 85 90 95

Ser Gly Ser Gly Ser Val Ser Ser Ile Ala Gln Gly Leu Glu Trp Ala
 100 105 110

Gly Asn Asn Gly Met His Val Ala Asn Leu Ser Leu Gly Ser Pro Ser
 115 120 125

Pro Ser Ala Thr Leu Glu Gln Ala Val Asn Ser Ala Thr Ser Arg Gly
 130 135 140

Val Leu Val Val Ala Ala Ser Gly Asn Ser Gly Ala Gly Ser Ile Ser
 145 150 155 160

Tyr Pro Ala Arg Tyr Ala Asn Ala Met Ala Val Gly Ala Thr Asp Gln
165 170 175

Asn Asn Asn Arg Ala Ser Phe Ser Gln Tyr Gly Ala Gly Leu Asp Ile
180 185 190

Val Ala Pro Gly Val Asn Val Gln Ser Thr Tyr Pro Gly Ser Thr Tyr
195 200 205

Ala Ser Leu Asn Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Ala
210 215 220

Ala Ala Leu Val Lys Gln Lys Asn Pro Ser Trp Ser Asn Val Gln Ile
225 230 235 240

Arg Asn His Leu Lys Asn Thr Ala Thr Ser Leu Gly Ser Thr Asn Leu
245 250 255

Tyr Gly Ser Gly Leu Val Asn Ala Glu Ala Ala Thr Arg
260 265