

SEQUENCE LISTING

<110> SEIKAGAKU CORPORATION

<120> AN AGENT FOR MEASURING ENDOTOXIN

<130> 0P-11070-PCT

<150> US61/447, 556

<151> 2011-02-28

<160> 12

<170> PatentIn version 3.1

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Ala Gln Gln Met Arg Pro Val Gln Ser Arg Gly Val Asp Leu Gly Leu

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Cys Asp Glu Thr Arg Phe Glu Cys Lys Cys Gly Asp Pro Gly Tyr Val

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Phe Asn Val Pro Met Lys Gln Cys Thr Tyr Phe Tyr Arg Trp Arg Pro

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Tyr Cys Lys Pro Cys Asp Asp Leu Glu Ala Lys Asp Ile Cys Pro Lys

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Cys	Pro	Pro	Asn	Lys	Tyr	Gly	Thr	Trp	Cys	Ser	Gly	Glu	Cys	Gln	Cys		
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Thr	Asn	Met	Ala	Ala	Arg	Leu	Ala	Val	Leu	Asp	Lys	Asp	Leu	Ile	Pro	
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Ser	Ser	Leu	Thr	Glu	Thr	Leu	Arg	Gly	Lys	Gly	Leu	Thr	Thr	Thr	Trp	
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Gln Asn Pro Pro Val Pro Ser Tyr Gly Ser Val Glu Ile Lys Pro Pro			
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Pro Arg Leu Pro Leu Pro Leu Ala Arg Ala Ala Lys Pro Pro Pro Lys			
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Glu Lys Trp Ile Val Thr Ala Ala His Cys Val Thr Tyr Ser Ala Thr	
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Ala Glu Ile Ile Asp Pro Ser Gln Phe Lys Ile Tyr Leu Gly Lys Tyr	
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Leu Glu Ile His Val Asn Pro Asn Tyr Asp Pro Gly Asn Leu Asn Phe	
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Lys Glu Gly Thr Leu Ala Val Val Thr Gly Trp Gly Leu Asn Glu Asn	
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Ala Ser Thr Cys Glu Glu Gly Tyr Lys Glu Ala Asp Leu Pro Leu Thr	
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Arg Thr Glu Arg Arg Trp Val Leu Glu Gly Ile Val Ser Trp Gly Ser
          980                      985                      990
ccc agt gga tgt ggc aag gct aac  cag tat ggg ggc ttc  act aaa gtt      3024
Pro Ser Gly Cys Gly Lys Ala Asn  Gln Tyr Gly Gly Phe  Thr Lys Val
          995                      1000                      1005
aac gtt  ttt cta tca tgg att  agg cag ttc att tga                      3060
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Tyr Cys Lys Pro Cys Asp Asp Leu Glu Ala Lys Asp Ile Cys Pro Lys
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Tyr Lys Arg Cys Gln Glu Cys Lys Ala Gly Leu Asp Ser Cys Val Thr
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Cys Pro Pro Asn Lys Tyr Gly Thr Trp Cys Ser Gly Glu Cys Gln Cys
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Lys Asn Gly Gly Ile Cys Asp Gln Arg Thr Gly Ala Cys Thr Cys Arg
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Asp Arg Tyr Glu Gly Ala His Cys Glu Ile Leu Lys Gly Cys Pro Leu
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Pro Gln Thr Ile Asp Tyr Ser Cys Ser Pro Gly Phe Lys Leu Lys Gly

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 Asp Gln Leu Gln Pro Val Trp Lys Thr Lys Ser Cys Phe Gln Pro Ser
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 Val Leu His Tyr Leu Ser Gly Thr Glu Thr Val Thr Cys Thr Thr Asn
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 675 680 685
 Pro Arg Ser Ser Gln Pro Ser Thr Val Asp Leu Ala Ser Lys Val Lys
 690 695 700
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 Gly Arg Ser Asp Ser Pro Arg Ser Pro Phe Ile Trp Asn Gly Asn Ser
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 Ala Glu Ile Ile Asp Pro Ser Gln Phe Lys Ile Tyr Leu Gly Lys Tyr

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Val Gln Pro Ile Cys Leu Pro Thr Asp Ile Thr Thr Arg Glu His Leu		
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10/20

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Asn Asp Asn Glu Cys Thr Ala Arg Gly Gly Leu Lys Gly Ser Cys Lys	
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Pro Asp Ala Ile Ala Pro Pro Pro Val Thr Thr Thr Ala Val Thr Val	
85 90 95	
ata tct aca aaa gaa cca aag ctt cca aga tta cat ata tca ggt tgt	336
Ile Ser Thr Lys Glu Pro Lys Leu Pro Arg Leu His Ile Ser Gly Cys	
100 105 110	
gga aaa aga aaa gtc aaa ata gat att aca act gtt gga cgc tct gga	384
Gly Lys Arg Lys Val Lys Ile Asp Ile Thr Thr Val Gly Arg Ser Gly	
115 120 125	
tca cca ata ctt cct ccg ata tct act cct caa aat tca aca ggt ggg	432
Ser Pro Ile Leu Pro Pro Ile Ser Thr Pro Gln Asn Ser Thr Gly Gly	
130 135 140	
aga gga att att gct gga ggc gta gaa gcc aaa att ggc gcg tgg cct	480
Arg Gly Ile Ile Ala Gly Gly Val Glu Ala Lys Ile Gly Ala Trp Pro	
145 150 155 160	
tgg atg gca gct gtt ttt gtg aaa aac ttt ggc att ggc aga ttc cac	528
Trp Met Ala Ala Val Phe Val Lys Asn Phe Gly Ile Gly Arg Phe His	
165 170 175	
tgt gct ggt agc ata atc agt aac aag tac att ttg tca gct gcc cac	576
Cys Ala Gly Ser Ile Ile Ser Asn Lys Tyr Ile Leu Ser Ala Ala His	
180 185 190	
gcc ttc ctt atc gga ggt cga aag ttg acc cca act cgc tta gct gtc	624
Ala Phe Leu Ile Gly Gly Arg Lys Leu Thr Pro Thr Arg Leu Ala Val	
195 200 205	
cgt gtg gga ggc cac tac ata aag agg ggt caa gag tat cca gtg aaa	672
Arg Val Gly Gly His Tyr Ile Lys Arg Gly Gln Glu Tyr Pro Val Lys	
210 215 220	
gac gtg att atc cat cct cat tat gta gaa aag gag aac tac aat gat	720
Asp Val Ile Ile His Pro His Tyr Val Glu Lys Glu Asn Tyr Asn Asp	
225 230 235 240	

11/20

ata gcc ata atc gag tta aaa gag gaa ctg aac ttt acg gac ttg gtc	768
Ile Ala Ile Ile Glu Leu Lys Glu Glu Leu Asn Phe Thr Asp Leu Val	
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aat cct ata tgt ctc cct gat cca gag aca gta acg gat cca tta aaa	816
Asn Pro Ile Cys Leu Pro Asp Pro Glu Thr Val Thr Asp Pro Leu Lys	
260 265 270	
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Asp Arg Ile Val Thr Ala Ala Gly Trp Gly Asp Leu Asp Phe Ser Gly	
275 280 285	
cca cgg agc caa gtt cta cgt gag gta agc atc cca gtt gtt cca gtt	912
Pro Arg Ser Gln Val Leu Arg Glu Val Ser Ile Pro Val Val Pro Val	
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gat aaa tgt gat caa gcc tat gag aaa ctc aac acc cct tca cta aaa	960
Asp Lys Cys Asp Gln Ala Tyr Glu Lys Leu Asn Thr Pro Ser Leu Lys	
305 310 315 320	
aat ggg ata acg aat aac ttc ctt tgc gct gga ttg gaa gaa gga ggg	1008
Asn Gly Ile Thr Asn Asn Phe Leu Cys Ala Gly Leu Glu Glu Gly Gly	
325 330 335	
aaa gac gct tgc caa ggc gat tct ggt gga ccg ttg atg cta gtg aac	1056
Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Met Leu Val Asn	
340 345 350	
aac act agg tgg ata gta gta gga gtt gtg tcg ttc ggg cac aag tgt	1104
Asn Thr Arg Trp Ile Val Val Gly Val Val Ser Phe Gly His Lys Cys	
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Ala Glu Glu Gly Tyr Pro Gly Val Tyr Ser Arg Val Ala Ser Tyr Leu	
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gac tgg atc gcg aaa gtt acg aac tcg tta gat cat gcc gtc act aac	1200
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<210> 4

<211> 400

<212> PRT

<213> Tachypleus tridentatus

<400> 4

Met Thr Trp Ile Cys Val Ile Thr Leu Phe Ala Leu Ala Ser Ala Thr

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Asn	Asp	Asn	Glu	Cys	Thr	Ala	Arg	Gly	Gly	Leu	Lys	Gly	Ser	Cys	Lys	
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Ser	Leu	Ile	Asp	Cys	Pro	Ser	Val	Leu	Ala	Thr	Leu	Lys	Asp	Ser	Phe	
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Pro	Val	Val	Cys	Ser	Trp	Asn	Gly	Arg	Phe	Gln	Pro	Ile	Val	Cys	Cys	
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Pro	Asp	Ala	Ile	Ala	Pro	Pro	Pro	Val	Thr	Thr	Thr	Ala	Val	Thr	Val	
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Ile	Ser	Thr	Lys	Glu	Pro	Lys	Leu	Pro	Arg	Leu	His	Ile	Ser	Gly	Cys	
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Ser	Pro	Ile	Leu	Pro	Pro	Ile	Ser	Thr	Pro	Gln	Asn	Ser	Thr	Gly	Gly	
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Cys	Ala	Gly	Ser	Ile	Ile	Ser	Asn	Lys	Tyr	Ile	Leu	Ser	Ala	Ala	His	
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Ala	Phe	Leu	Ile	Gly	Gly	Arg	Lys	Leu	Thr	Pro	Thr	Arg	Leu	Ala	Val	
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Arg	Val	Gly	Gly	His	Tyr	Ile	Lys	Arg	Gly	Gln	Glu	Tyr	Pro	Val	Lys	
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Asp	Val	Ile	Ile	His	Pro	His	Tyr	Val	Glu	Lys	Glu	Asn	Tyr	Asn	Asp	
225					230					235					240	
Ile	Ala	Ile	Ile	Glu	Leu	Lys	Glu	Glu	Leu	Asn	Phe	Thr	Asp	Leu	Val	
			245						250					255		
Asn	Pro	Ile	Cys	Leu	Pro	Asp	Pro	Glu	Thr	Val	Thr	Asp	Pro	Leu	Lys	
		260						265					270			
Asp	Arg	Ile	Val	Thr	Ala	Ala	Gly	Trp	Gly	Asp	Leu	Asp	Phe	Ser	Gly	
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Pro	Arg	Ser	Gln	Val	Leu	Arg	Glu	Val	Ser	Ile	Pro	Val	Val	Pro	Val	
	290					295					300					
Asp	Lys	Cys	Asp	Gln	Ala	Tyr	Glu	Lys	Leu	Asn	Thr	Pro	Ser	Leu	Lys	
305					310					315					320	
Asn	Gly	Ile	Thr	Asn	Asn	Phe	Leu	Cys	Ala	Gly	Leu	Glu	Glu	Gly	Gly	
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Lys	Asp	Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Met	Leu	Val	Asn	

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Asn	Thr	Arg	Trp	Ile	Val	Val	Gly	Val	Val	Ser	Phe	Gly	His	Lys	Cys
355							360				365				
Ala	Glu	Glu	Gly	Tyr	Pro	Gly	Val	Tyr	Ser	Arg	Val	Ala	Ser	Tyr	Leu
370							375				380				
Asp	Trp	Ile	Ala	Lys	Val	Thr	Asn	Ser	Leu	Asp	His	Ala	Val	Thr	Asn
385							390				395				
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$\langle 211 \rangle$	1128
$\langle 212 \rangle$	DNA
$\langle 213 \rangle$	<i>Tachyplesus tridentatus</i>

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$\langle 221 \rangle$	CDS
$\langle 222 \rangle$	(1)..(1128)

[illegible]

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Ile	Gly	Gly	Arg	Glu	Ala	Pro	Ile	Gly	Ala	Trp	Pro	Trp	Met	Thr	Ala		
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gtc	tac	ata	aaa	caa	gga	gga	atc	aga	agt	gtt	cag	tgt	ggt	ggc	gca	480	
Val	Tyr	Ile	Lys	Gln	Gly	Gly	Ile	Arg	Ser	Val	Gln	Cys	Gly	Gly	Ala		
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Leu	Val	Thr	Asn	Arg	His	Val	Ile	Thr	Ala	Ser	His	Cys	Val	Val	Asn		
				165					170					175			
agt	gca	gga	aca	gat	gtg	atg	cca	gct	gat	gta	ttc	tcg	gtt	cgt	ctg	576	
Ser	Ala	Gly	Thr	Asp	Val	Met	Pro	Ala	Asp	Val	Phe	Ser	Val	Arg	Leu		
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ggt	gaa	cac	aat	tta	tac	agt	acc	gat	gac	gat	tcg	aat	cca	ata	gat	624	
Gly	Glu	His	Asn	Leu	Tyr	Ser	Thr	Asp	Asp	Asp	Ser	Asn	Pro	Ile	Asp		
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Phe	Ala	Val	Thr	Ser	Val	Lys	His	His	Glu	His	Phe	Val	Leu	Ala	Thr		
		210				215					220						
tat	ttg	aat	gac	atc	gca	att	cta	acg	tta	aat	gac	aca	gtt	acg	ttt	720	
Tyr	Leu	Asn	Asp	Ile	Ala	Ile	Leu	Thr	Leu	Asn	Asp	Thr	Val	Thr	Phe		
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aca	gac	aga	att	cga	ccc	att	tgt	cta	cct	tat	cgt	aag	ttg	aga	tac	768	
Thr	Asp	Arg	Ile	Arg	Pro	Ile	Cys	Leu	Pro	Tyr	Arg	Lys	Leu	Arg	Tyr		
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gat	gat	cta	gca	atg	aga	aaa	ccg	ttt	atc	act	gga	tgg	gga	aca	aca	816	
Asp	Asp	Leu	Ala	Met	Arg	Lys	Pro	Phe	Ile	Thr	Gly	Trp	Gly	Thr	Thr		
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gca	ttt	aac	ggc	cca	tct	agt	gca	gtg	ttg	aga	gaa	gta	cag	tta	cca	864	
Ala	Phe	Asn	Gly	Pro	Ser	Ser	Ala	Val	Leu	Arg	Glu	Val	Gln	Leu	Pro		
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ata	tgg	gaa	cac	gag	gcc	tgt	aga	cag	gcc	tac	gag	aag	gat	tta	aat	912	
Ile	Trp	Glu	His	Glu	Ala	Cys	Arg	Gln	Ala	Tyr	Glu	Lys	Asp	Leu	Asn		
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att	aca	aac	gtg	tat	atg	tgt	gct	ggc	ttt	gca	gat	ggc	ggg	aag	gat	960	
Ile	Thr	Asn	Val	Tyr	Met	Cys	Ala	Gly	Phe	Ala	Asp	Gly	Gly	Lys	Asp		
		305				310				315			320				
gct	tgc	cag	ggt	gat	tct	gga	ggt	cca	atg	atg	ttg	cct	gtt	aaa	acc	1008	
Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Met	Met	Leu	Pro	Val	Lys	Thr		
				325				330					335				

15/20

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Gly Glu Phe Tyr Leu Ile Gly Ile Val Ser Phe Gly Lys Lys Cys Ala	
340 345 350	
ttg cct gga ttt cct ggg gtt tac aca aaa gtg aca gag ttt tta gat	1104
Leu Pro Gly Phe Pro Gly Val Tyr Thr Lys Val Thr Glu Phe Leu Asp	
355 360 365	
tgg att gca gaa cat atg gtg tag	1128
Trp Ile Ala Glu His Met Val	
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<210> 6

<211> 375

<212> PRT

<213> Tachypleus tridentatus

<400> 6

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Phe Pro Asp Glu Glu Glu Leu Cys Ser Asn Arg Phe Thr Glu Glu Gly	
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Thr Cys Lys Asn Val Leu Asp Cys Arg Ile Leu Leu Gln Lys Asn Asp	
50 55 60	
Tyr Asn Leu Leu Lys Glu Ser Ile Cys Gly Phe Glu Gly Ile Thr Pro	
65 70 75 80	
Lys Val Cys Cys Pro Lys Ser Ser His Val Ile Ser Ser Thr Gln Ala	
85 90 95	
Pro Pro Glu Thr Thr Thr Thr Glu Arg Pro Pro Lys Gln Ile Pro Pro	
100 105 110	
Asn Leu His Glu Val Cys Gly Ile His Asn Thr Thr Thr Thr Arg Ile	
115 120 125	
Ile Gly Gly Arg Glu Ala Pro Ile Gly Ala Trp Pro Trp Met Thr Ala	
130 135 140	
Val Tyr Ile Lys Gln Gly Gly Ile Arg Ser Val Gln Cys Gly Gly Ala	
145 150 155 160	
Leu Val Thr Asn Arg His Val Ile Thr Ala Ser His Cys Val Val Asn	
165 170 175	
Ser Ala Gly Thr Asp Val Met Pro Ala Asp Val Phe Ser Val Arg Leu	
180 185 190	

Gly Glu His Asn Leu Tyr Ser Thr Asp Asp Asp Ser Asn Pro Ile Asp
 195 200 205
 Phe Ala Val Thr Ser Val Lys His His Glu His Phe Val Leu Ala Thr
 210 215 220
 Tyr Leu Asn Asp Ile Ala Ile Leu Thr Leu Asn Asp Thr Val Thr Phe
 225 230 235 240
 Thr Asp Arg Ile Arg Pro Ile Cys Leu Pro Tyr Arg Lys Leu Arg Tyr
 245 250 255
 Asp Asp Leu Ala Met Arg Lys Pro Phe Ile Thr Gly Trp Gly Thr Thr
 260 265 270
 Ala Phe Asn Gly Pro Ser Ser Ala Val Leu Arg Glu Val Gln Leu Pro
 275 280 285
 Ile Trp Glu His Glu Ala Cys Arg Gln Ala Tyr Glu Lys Asp Leu Asn
 290 295 300
 Ile Thr Asn Val Tyr Met Cys Ala Gly Phe Ala Asp Gly Gly Lys Asp
 305 310 315 320
 Ala Cys Gln Gly Asp Ser Gly Gly Pro Met Met Leu Pro Val Lys Thr
 325 330 335
 Gly Glu Phe Tyr Leu Ile Gly Ile Val Ser Phe Gly Lys Lys Cys Ala
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<210> 7

<211> 3078

<212> DNA

<213> Tachypleus tridentatus

<400> 7

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<210> 8

<211> 1203

<212> DNA

<213> *Tachypleus tridentatus*

<400> 8

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<210> 9

<211> 1128

<212> DNA

<213> *Tachypleus tridentatus*

<400> 9

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