

43925PCT SEQ LISTING_ST25
SEQUENCE LISTING

<110> Monash University
La Trobe University
Peptides International, Inc.
Baylor College of Medicine

<120> NOVEL POTASSIUM CHANNEL BLOCKERS AND USE THEREOF

<130> 43925PCT

<160> 18

<170> PatentIn version 3.5

<210> 1
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> N-terminal extension modification of ShK

<400> 1
Glu Ser Ser Ser
1

<210> 2
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> N-terminal extension modification of ShK

<400> 2
Glu Trp Ser Ser
1

<210> 3
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> N-terminal extension modification of ShK

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa is absent or a first additional moiety

<220>
<221> misc_feature
<222> (2)..(2)
<223> Xaa is D, E or other negatively-charged amino acid or derivative thereof

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is E, I, L, S, V, W or a tryptophan derivative

43925PCT SEQ LISTING_ST25

<220>
 <221> misc_feature
 <222> (4)..(4)
 <223> Xaa is any amino acid

<220>
 <221> misc_feature
 <222> (5)..(5)
 <223> Xaa is any amino acid

<220>
 <221> misc_feature
 <222> (6)..(6)
 <223> Xaa is absent or a second additional moiety

<400> 3

Xaa Xaa Xaa Xaa Xaa Xaa
 1 5

<210> 4
 <211> 35
 <212> PRT
 <213> Stichodactyla helianthus

<400> 4

Arg Ser Cys Ile Asp Thr Ile Pro Lys Ser Arg Cys Thr Ala Phe Gln
 1 5 10 15

Cys Lys His Ser Met Lys Tyr Arg Leu Ser Phe Cys Arg Lys Thr Cys
 20 25 30

Gly Thr Cys
 35

<210> 5
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal extension modification of ShK

<400> 5

Glu Glu Ser Ser
 1

<210> 6
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal extension modification of ShK

<400> 6

Glu Trp Ser Thr
 1

43925PCT SEQ LISTING_ST25

<210> 7
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal extension modification of ShK

<400> 7

Glu Trp Thr Thr
 1

<210> 8
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal extension modification of ShK

<400> 8

Glu Trp Thr Ser
 1

<210> 9
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal extension modification of ShK

<400> 9

Ser Glu Trp Ser Ser
 1 5

<210> 10
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Stichodactyla helianthus toxin ShK with an N-terminal extension modification

<400> 10

Glu Trp Ser Ser Arg Ser Cys Ile Asp Thr Ile Pro Lys Ser Arg Cys
 1 5 10 15

Thr Ala Phe Gln Cys Lys His Ser Met Lys Tyr Arg Leu Ser Phe Cys
 20 25 30

Arg Lys Thr Cys Gly Thr Cys
 35

<210> 11
 <211> 35
 <212> PRT

43925PCT SEQ LISTING_ST25

<213> Stichodactyla helianthus

<400> 11

Arg	Ser	Cys	Ile	Asp	Thr	Lys	Pro	Lys	Ser	Arg	Cys	Thr	Ala	Phe	Gln
1				5					10					15	

Cys	Lys	His	Ser	Met	Lys	Tyr	Arg	Leu	Ser	Phe	Cys	Arg	Lys	Thr	Cys
			20					25					30		

Gly	Thr	Cys
		35

<210> 12

<211> 35

<212> PRT

<213> Stichodactyla helianthus

<400> 12

Arg	Ser	Cys	Ile	Asp	Thr	Ile	Pro	Lys	Ala	Arg	Cys	Thr	Ala	Phe	Gln
1				5					10					15	

Cys	Lys	His	Ser	Met	Lys	Tyr	Arg	Leu	Ser	Phe	Cys	Arg	Lys	Thr	Cys
			20					25					30		

Gly	Thr	Cys
		35

<210> 13

<211> 35

<212> PRT

<213> Stichodactyla helianthus

<400> 13

Arg	Ser	Cys	Ile	Asp	Thr	Ile	Pro	Lys	Ser	Arg	Cys	Thr	Ala	Phe	Lys
1				5					10					15	

Cys	Lys	His	Ser	Met	Lys	Tyr	Arg	Leu	Ser	Phe	Cys	Arg	Lys	Thr	Cys
			20					25					30		

Gly	Thr	Cys
		35

<210> 14

<211> 35

<212> PRT

<213> Stichodactyla helianthus

<400> 14

Arg	Ser	Cys	Ile	Asp	Thr	Ile	Pro	Lys	Ser	Arg	Cys	Thr	Ala	Phe	Gln
1				5					10					15	

Cys	Lys	His	Lys	Met	Lys	Tyr	Arg	Leu	Ser	Phe	Cys	Arg	Lys	Thr	Cys
			20					25					30		

43925PCT SEQ LISTING_ST25

Gly Thr Cys
35

<210> 15
<211> 35
<212> PRT
<213> Stichodactyla helianthus

<400> 15

Arg Ser Cys Ile Asp Thr Ile Pro Lys Ser Arg Cys Thr Ala Phe Gln
1 5 10 15

Cys Lys His Arg Met Lys Tyr Arg Leu Ser Phe Cys Arg Lys Thr Cys
20 25 30

Gly Thr Cys
35

<210> 16
<211> 35
<212> PRT
<213> Stichodactyla helianthus

<400> 16

Arg Ser Cys Ile Asp Thr Ile Pro Lys Ser Arg Cys Thr Ala Phe Gln
1 5 10 15

Cys Lys His Ser Met Ala Tyr Arg Leu Ser Phe Cys Arg Lys Thr Cys
20 25 30

Gly Thr Cys
35

<210> 17
<211> 35
<212> PRT
<213> Stichodactyla helianthus

<400> 17

Arg Ser Cys Ile Asp Thr Ile Pro Lys Ser Arg Cys Thr Ala Phe Gln
1 5 10 15

Cys Lys His Ser Met Lys Ala Arg Leu Ser Phe Cys Arg Lys Thr Cys
20 25 30

Gly Thr Cys
35

<210> 18
<211> 35
<212> PRT
<213> Stichodactyla helianthus

<400> 18

43925PCT SEQ LISTING_ST25

Arg Ser Cys Ile Asp Thr Ile Pro Lys Ser Arg Cys Thr Ala Phe Gln
1 5 10 15

Cys Lys His Ser Met Lys Tyr Arg Leu Ser Phe Cys Lys Lys Thr Cys
20 25 30

Gly Thr Cys
35