

SEQUENCE LISTING

<110> Hermon-Taylor, John

<120> DIAGNOSTIC

<130> N407615W0

<150> GB 1700487.0

<151> 2017-01-11

<160> 97

<170> PatentIn version 3.5

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<212> PRT

<213> Mycobacterium avium paratuberculosis

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Gln Arg Leu Leu Ser Gln Arg Val Ala Asn Asp Glu Ala Ala Leu Leu
35 40 45

Glu Leu Ile Ala Ala Val Thr Thr Leu Ala Asp Gly Gly Glu Val Thr
50 55 60

Trp Ala Ile Asp Leu Asn Ala Gly Gly Ala Ala Leu Leu Ile Ala Leu
65 70 75 80

Leu Ile Ala Ala Gly Gln Arg Leu Leu Tyr Ile Pro Gly Arg Thr Val
85 90 95

His His Ala Ala Gly Ser Tyr Arg Gly Glu Gly Lys Thr Asp Ala Lys
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Asp Ala Ala Ile Ile Ala Asp Gln Ala Arg Met Arg His Asp Leu Gln
115 120 125

Pro Leu Arg Ala Gly Asp Asp Ile Ala Val Glu Leu Arg Ile Leu Thr
130 135 140

Ser Arg Arg Ser Asp Leu Val Ala Asp Arg Thr Arg Ala Ile Asn Arg
145 150 155 160

Met Arg Ala Gln Leu Leu Glu Tyr Phe Pro Ala Leu Glu Arg Ala Phe
165 170 175

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

Thr Pro Asp Ala Leu Arg Ser Ala Gly Gly Ala Arg Val Ala Ala Phe
195 200 205

Leu Arg Lys Arg Lys Ala Arg Asn Ala Asp Thr Val Ala Ala Thr Ala
210 215 220

Leu Gln Ala Ala Asn Ala Gln His Ser Ile Val Pro Gly Gln Gln Leu
225 230 235 240

Ala Ala Thr Val Val Ala Arg Leu Ala Lys Glu Val Met Ala Leu Asp
245 250 255

Thr Glu Ile Gly Asp Thr Asp Ala Met Ile Glu Glu Arg Phe Arg Arg
260 265 270

His Arg His Ala Glu Ile Ile Leu Ser Met Pro Gly Phe Gly Val Ile
275 280 285

Leu Gly Ala Glu Phe Leu Ala Ala Thr Gly Gly Asp Met Ala Ala Phe
290 295 300

Ala Ser Ala Asp Arg Leu Ala Gly Val Ala Gly Leu Ala Pro Val Pro
305 310 315 320

Arg Asp Ser Gly Arg Ile Ser Gly Asn Leu Lys Arg Pro Arg Arg Tyr
325 330 335

Asp Arg Arg Leu Leu Arg Ala Cys Tyr Leu Ser Ala Leu Val Ser Ile
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Arg Thr Asp Pro Ser Ser Arg Thr Tyr Tyr Asp Arg Lys Arg Thr Glu
355 360 365

Gly Lys Arg His Thr Gln Ala Val Leu Ala Leu Ala Arg Arg Arg Leu
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Asp

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Val

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Ala Leu Asp Thr Glu Ile Gly Asp Thr Asp Ala Met Ile Glu Glu
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Gly Arg Ile Ser Gly Asn Leu Lys Arg Pro Arg Arg Tyr Asp Arg Arg
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Pro Ser Ser Arg Thr Tyr Tyr Asp
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Val Thr Arg Leu Ala Asp Gly Gly Glu Val Thr Trp Ala Val Asp
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Val Thr Arg Leu Ala Asp Gly Gly Glu Val Thr Trp Ala Val Asp
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Val Thr Ala Gln Ala Asp Gly Gly Asp Val Thr Trp Ala Ile Asp
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Asn Leu Gln Arg Pro Arg Arg Tyr Asn Arg Arg Leu Leu Arg Ala
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Asn Ala

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Asp Ala

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Cys Asn Leu Lys Arg Pro Arg Arg Tyr Asp Arg

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Cys Val Ser Ile Arg Thr Asp Pro Ser Ser Arg
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Ile Ala Ile Arg Thr Asp Pro Ala Ser Arg

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Val Thr Thr Leu Ala Asp Gly Gly Glu Val Thr Cys
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1 5 10

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Met Val Ile Asn Asp Asp Leu Gln Arg Ile Ile Leu Phe Leu
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Met Ser Ile Asn Asp Asp Ala Gln Lys Leu Lys Asp Arg Leu
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<223> AMIDATION

<400> 80

Met Val Ile Asn Asp Asp Ala Gln Arg Leu Leu Ser Gln Arg
1 5 10

<210> 81
<211> 21
<212> PRT
<213> Mycobacterium avium paratuberculosis

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<223> BSA conjugated

<400> 81

Ala Ala Val Thr Thr Leu Ala Asp Gly Gly Glu Val Thr Trp Ala Ile
1 5 10 15

Asp Gly Lys Lys Cys
20

<210> 82
<211> 20
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<223> Biotinyl

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<400> 82

Lys Lys Gly Ala Ala Val Thr Thr Leu Ala Asp Gly Gly Glu Val Thr
1 5 10 15

Trp Ala Ile Asp
20

<210> 83
<211> 20
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<400> 83

Lys Lys Gly Ala Ala Gly Thr Thr Leu Ala Asp Gly Gly Glu Val Thr
1 5 10 15

Trp Ala Ile Asp

20

<210> 84
<211> 20
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<400> 84

Lys Lys Gly Ser Thr Val Ala Thr Met Ala Asp Gly Gly Glu Val Thr
1 5 10 15

Trp Ala Ile Asp
20

<210> 85
<211> 20
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<400> 85

Lys Lys Gly Gln Ala Val Thr Arg Leu Ala Asp Gly Gly Glu Val Thr
1 5 10 15

Trp Ala Val Asp
20

<210> 86
<211> 20
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<223> AMIDATION

<400> 86

Lys Lys Gly Phe Glu Val Thr Thr Leu Ala Asp Gly Thr Glu Val Ala
1 5 10 15

Thr Ser Pro Leu
20

<210> 87
<211> 16
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<223> PHOSPHORYLATION

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<223> Amide BSA conjugated

<400> 87

Cys Tyr Leu Ser Ala Leu Val Ser Ile Arg Thr Asp Pro Ser Ser Arg

1 5 10 15

<210> 88
<211> 15
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (15)..(15)
<223> AMIDATION

<400> 88

Tyr Leu Ser Ala Leu Val Ser Ile Arg Thr Asp Pro Ser Ser Arg
1 5 10 15

<210> 89
<211> 15
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<220>
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<400> 89

Tyr Leu Ser Ala Leu Val Ser Ile Arg Thr Asp Pro Ser Ser Arg
1 5 10 15

<210> 90
<211> 15
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<400> 90

Tyr	Leu	Ser	Ala	Leu	Tyr	Ser	Ile	Arg	Ser	Asp	Pro	Ala	Ser	Arg
1				5				10					15	

<210> 91
<211> 15
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<213> Mycobacterium avium paratuberculosis

<220>
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<222> (14)..(14)
<223> PHOSPHORYLATION

<220>
<221> MOD_RES
<222> (15)..(15)
<223> AMIDATION

<400> 91

Tyr	Leu	Ser	Ala	Leu	Val	Ser	Val	Arg	Tyr	Asp	Pro	Ser	Ser	Arg
1				5					10					15

<210> 92

<211> 15

<212> PRT

<213> Mycobacterium avium paratuberculosis

<220>

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<222> (14)..(14)

<223> PHOSPHORYLATION

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<221> MOD_RES

<222> (15)..(15)

<223> AMIDATION

<400> 92

Tyr	Leu	Ser	Ala	Gln	Ile	Ala	Ile	Arg	Thr	Asp	Pro	Ala	Ser	Arg
1				5					10					15

<210> 93

<211> 14

<212> PRT

<213> Mycobacterium avium paratuberculosis

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> BSA

<220>

<221> MOD_RES

<222> (14)..(14)

<223> AMIDATION

<400> 93

Met Val Ile Asn Asp Asp Ala Gln Arg Leu Leu Ser Gln Arg
1 5 10

<210> 94
<211> 14
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<223> BSA

<220>
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<222> (12)..(12)
<223> PHOSPHORYLATION

<400> 94

Met Val Ile Asn Asp Asp Ala Gln Arg Leu Leu Ser Gln Arg
1 5 10

<210> 95
<211> 10
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<222> (1)..(1)
<223> BSA

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 95

Val Ser Ile Arg Thr Asp Pro Ser Ser Arg
1 5 10

<210> 96

<211> 15
<212> PRT
<213> Mycobacterium avium paratuberculosis

<220>
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<223> BSA

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<223> PHOSPHORYLATION

<220>
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<222> (15)..(15)
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<400> 96

Tyr Leu Ser Ala Leu Val Ser Ile Arg Thr Asp Pro Ser Ser Arg
1 5 10 15

<210> 97
<211> 16
<212> PRT
<213> Mycobacterium avium paratuberculosis

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<222> (15)..(15)
<223> PHOSPHORYLATION

<400> 97

Tyr Leu Ser Ala Leu Val Ser Val Arg Tyr Asp Pro Ser Pro Ser Arg
1 5 10 15