SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> Treatment Of Respiratory Disorders With Arachidonate 15-Lipoxygenase (ALOX15) Inhibitors

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<151> 2018-12-28

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            20                  25                  30

Ala Ala Leu Gly Lys Arg Leu Trp Pro Ala Arg Gly Lys Glu Thr Glu
        35                  40                  45

Leu Lys Val Glu Val Pro Glu Tyr Leu Gly Pro Leu Leu Phe Val Lys
    50                  55                  60

Leu Arg Lys Arg His Leu Leu Lys Asp Asp Ala Trp Phe Cys Asn Trp
65                  70                  75                  80

Ile Ser Val Gln Gly Pro Gly Ala Gly Asp Glu Val Arg Phe Pro Cys
                85                  90                  95

Tyr Arg Trp Val Glu Gly Asn Gly Val Leu Ser Leu Pro Glu Gly Thr
            100                 105                 110

Gly Arg Thr Val Gly Glu Asp Pro Gln Gly Leu Phe Gln Lys His Arg
        115                 120                 125

Glu Glu Glu Leu Glu Glu Arg Arg Lys Leu Tyr Arg Trp Gly Asn Trp
    130                 135                 140

Lys Asp Gly Leu Ile Leu Asn Met Ala Gly Ala Lys Leu Tyr Asp Leu
145                 150                 155                 160

Pro Val Asp Glu Arg Phe Leu Glu Asp Lys Arg Val Asp Phe Glu Val
                165                 170                 175
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Ser Leu Ala Lys Gly Leu Ala Asp Leu Ala Ile Lys Asp Ser Leu Asn
            180                 185                 190

Val Leu Thr Cys Trp Lys Asp Leu Asp Asp Phe Asn Arg Ile Phe Trp
        195                 200                 205

Cys Gly Gln Ser Lys Leu Ala Glu Arg Val Arg Asp Ser Trp Lys Glu
    210                 215                 220

Asp Ala Leu Phe Gly Tyr Gln Phe Leu Asn Gly Ala Asn Pro Val Val
225                 230                 235                 240

Leu Arg Arg Ser Ala His Leu Pro Ala Arg Leu Val Phe Pro Pro Gly
                245                 250                 255

Met Glu Glu Leu Gln Ala Gln Leu Glu Lys Glu Leu Glu Gly Gly Thr
            260                 265                 270

Leu Phe Glu Ala Asp Phe Ser Leu Leu Asp Gly Ile Lys Ala Asn Val
        275                 280                 285

Ile Leu Cys Ser Gln Gln His Leu Ala Ala Pro Leu Val Met Leu Lys
    290                 295                 300

Leu Gln Pro Asp Gly Lys Leu Leu Pro Met Val Ile Gln Leu Gln Leu
305                 310                 315                 320

Pro Arg Thr Gly Ser Pro Pro Pro Pro Leu Phe Leu Pro Thr Asp Pro
                325                 330                 335

Pro Met Ala Trp Leu Leu Ala Lys Cys Trp Val Arg Ser Ser Asp Phe
            340                 345                 350

Gln Leu His Glu Leu Gln Ser His Leu Leu Arg Gly His Leu Met Ala
        355                 360                 365

Glu Val Ile Val Val Ala Thr Met Arg Cys Leu Pro Ser Ile His Pro
    370                 375                 380

Ile Phe Lys Leu Ile Ile Pro His Leu Arg Tyr Thr Leu Glu Ile Asn
385                 390                 395                 400

Val Arg Ala Arg Thr Gly Leu Val Ser Asp Met Gly Ile Phe Asp Gln
                405                 410                 415

Ile Met Ser Thr Gly Gly Gly Gly His Val Gln Leu Leu Lys Gln Ala
            420                 425                 430

Gly Ala Phe Leu Thr Tyr Ser Ser Phe Cys Pro Pro Asp Asp Leu Ala
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        435                 440                 445

Asp Arg Gly Leu Leu Gly Val Lys Ser Ser Phe Tyr Ala Gln Asp Ala
    450                 455                 460

Leu Arg Leu Trp Glu Ile Ile Tyr Arg Tyr Val Glu Gly Ile Val Ser
465                 470                 475                 480

Leu His Tyr Lys Thr Asp Val Ala Val Lys Asp Asp Pro Glu Leu Gln
                485                 490                 495

Thr Trp Cys Arg Glu Ile Thr Glu Ile Gly Leu Gln Gly Ala Gln Asp
            500                 505                 510

Arg Gly Phe Pro Val Ser Leu Gln Ala Arg Asp Gln Val Cys His Phe
        515                 520                 525

Val Thr Met Cys Ile Phe Thr Cys Thr Gly Gln His Ala Ser Val His
    530                 535                 540

Leu Gly Gln Leu Asp Trp Tyr Ser Trp Val Pro Asn Ala Pro Cys Thr
545                 550                 555                 560

Met Arg Leu Pro Pro Pro Thr Thr Lys Asp Ala Thr Leu Glu Thr Val
                565                 570                 575

Met Ala Thr Leu Pro Asn Phe His Gln Ala Ser Leu Gln Met Ser Ile
            580                 585                 590

Thr Trp Gln Leu Gly Arg Arg Gln Pro Val Met Val Ala Val Gly Gln
        595                 600                 605

His Glu Glu Glu Tyr Phe Ser Gly Pro Glu Pro Lys Ala Val Leu Lys
    610                 615                 620

Lys Phe Arg Glu Glu Leu Ala Ala Leu Asp Lys Glu Ile Glu Ile Arg
625                 630                 635                 640

Asn Ala Lys Leu Asp Met Pro Tyr Glu Tyr Leu Arg Pro Ser Val Val
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Glu Asn Ser Val Ala Ile
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<210> 8
<211> 662
<212> PRT
<213> homo sapien

<400> 8

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Gly Ser Asn Asn Gln Val Gln Leu Trp Leu Val Gly Gln His Gly Glu
            20                  25                  30

Ala Ala Leu Gly Lys Arg Leu Trp Pro Ala Arg Gly Lys Glu Thr Glu
        35                  40                  45

Leu Lys Val Glu Val Pro Glu Tyr Leu Gly Pro Leu Leu Phe Val Lys
    50                  55                  60

Leu Arg Lys Arg His Leu Leu Lys Asp Asp Ala Trp Phe Cys Asn Trp
65                  70                  75                  80

Ile Ser Val Gln Gly Pro Gly Ala Gly Asp Glu Val Arg Phe Pro Cys
                85                  90                  95

Tyr Arg Trp Val Glu Gly Asn Gly Val Leu Ser Leu Pro Glu Gly Thr
            100                 105                 110

Gly Arg Thr Val Gly Glu Asp Pro Gln Gly Leu Phe Gln Lys His Arg
        115                 120                 125

Glu Glu Glu Leu Glu Glu Arg Arg Lys Leu Tyr Arg Trp Gly Asn Trp
    130                 135                 140

Lys Asp Gly Leu Ile Leu Asn Met Ala Gly Ala Lys Leu Tyr Asp Leu
145                 150                 155                 160

Pro Val Asp Glu Arg Phe Leu Glu Asp Lys Arg Val Asp Phe Glu Val
                165                 170                 175

Ser Leu Ala Lys Gly Leu Ala Asp Leu Ala Ile Lys Asp Ser Leu Asn
            180                 185                 190

Val Leu Thr Cys Trp Lys Asp Leu Asp Asp Phe Asn Arg Ile Phe Trp
        195                 200                 205

Cys Gly Gln Ser Lys Leu Ala Glu Arg Val Arg Asp Ser Trp Lys Glu
    210                 215                 220

Asp Ala Leu Phe Gly Tyr Gln Phe Leu Asn Gly Ala Asn Pro Val Val
225                 230                 235                 240

Leu Arg Arg Ser Ala His Leu Pro Ala Arg Leu Val Phe Pro Pro Gly
                245                 250                 255

Met Glu Glu Leu Gln Ala Gln Leu Glu Lys Glu Leu Glu Gly Gly Thr
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            260                 265                 270

Leu Phe Glu Ala Asp Phe Ser Leu Leu Asp Gly Ile Lys Ala Asn Val
        275                 280                 285

Ile Leu Cys Ser Gln Gln His Leu Ala Ala Pro Leu Val Met Leu Lys
    290                 295                 300

Leu Gln Pro Asp Gly Lys Leu Leu Pro Met Val Ile Gln Leu Gln Leu
305                 310                 315                 320

Pro Arg Thr Gly Ser Pro Pro Pro Pro Leu Phe Leu Pro Thr Asp Pro
                325                 330                 335

Pro Met Ala Trp Leu Leu Ala Lys Cys Trp Val Arg Ser Ser Asp Phe
            340                 345                 350

Gln Leu His Glu Leu Gln Ser His Leu Leu Arg Gly His Leu Met Ala
        355                 360                 365

Glu Val Ile Val Val Ala Thr Met Arg Cys Leu Pro Ser Ile His Pro
    370                 375                 380

Ile Phe Lys Leu Ile Ile Pro His Leu Arg Tyr Thr Leu Glu Ile Asn
385                 390                 395                 400

Val Arg Ala Arg Thr Gly Leu Val Ser Asp Met Gly Ile Phe Asp Gln
                405                 410                 415

Ile Met Ser Thr Gly Gly Gly Gly His Val Gln Leu Leu Lys Gln Ala
            420                 425                 430

Gly Ala Phe Leu Thr Tyr Ser Ser Phe Cys Pro Pro Asp Asp Leu Ala
        435                 440                 445

Asp Arg Gly Leu Leu Gly Val Lys Ser Ser Phe Tyr Ala Gln Asp Ala
    450                 455                 460

Leu Arg Leu Trp Glu Ile Ile Tyr Arg Tyr Val Glu Gly Ile Val Ser
465                 470                 475                 480

Leu His Tyr Lys Thr Asp Val Ala Val Lys Asp Asp Pro Glu Leu Gln
                485                 490                 495

Thr Trp Cys Arg Glu Ile Thr Glu Ile Gly Leu Gln Gly Ala Gln Asp
            500                 505                 510

Arg Gly Phe Pro Val Ser Leu Gln Ala Arg Asp Gln Val Cys His Phe
        515                 520                 525
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Val Thr Met Cys Ile Phe Thr Cys Thr Gly Gln His Ala Ser Val His
    530                 535                 540

Leu Gly Gln Leu Asp Trp Tyr Ser Trp Val Pro Asn Ala Pro Cys Met
545                 550                 555                 560

Met Arg Leu Pro Pro Pro Thr Thr Lys Asp Ala Thr Leu Glu Thr Val
                565                 570                 575

Met Ala Thr Leu Pro Asn Phe His Gln Ala Ser Leu Gln Met Ser Ile
            580                 585                 590

Thr Trp Gln Leu Gly Arg Arg Gln Pro Val Met Val Ala Val Gly Gln
        595                 600                 605

His Glu Glu Glu Tyr Phe Ser Gly Pro Glu Pro Lys Ala Val Leu Lys
    610                 615                 620

Lys Phe Arg Glu Glu Leu Ala Ala Leu Asp Lys Glu Ile Glu Ile Arg
625                 630                 635                 640

Asn Ala Lys Leu Asp Met Pro Tyr Glu Tyr Leu Arg Pro Ser Val Val
                645                 650                 655

Glu Asn Ser Val Ala Ile
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<210> 16
<211> 59
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<400> 16
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<210> 17
<211> 170
<212> PRT
<213> artificial sequence

<220>
<223> PP1 inhibitory peptide

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Leu Glu Pro His Leu Asp Pro Glu Ala Ala Glu Gln Ile Arg Arg Arg
            20   25   30

Arg Pro Thr Pro Ala Thr Leu Val Leu Thr Ser Asp Gln Ser Ser Pro
        35   40   45

Glu Ile Asp Glu Asp Arg Ile Pro Asn Ser Leu Leu Lys Ser Thr Leu
    50   55   60

Ser Met Ser Pro Arg Gln Arg Lys Lys Met Thr Arg Thr Thr Pro Thr
65   70   75   80

Met Lys Glu Leu Gln Thr Met Val His His Leu Gly Gln Gln Lys Gln
                85   90   95

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Gly Glu Glu Pro Glu Gly Ala Thr Glu Ser Thr Gly Asn Gln Glu Ser
            100                 105                 110

Cys Pro Pro Gly Ile Pro Asp Thr Gly Ser Ala Ser Arg Pro Asp Thr
        115                 120                 125

Pro Gly Thr Ala Gln Lys Ser Ala Glu Ser Asn Pro Lys Thr Gln Glu
    130                 135                 140

Gln Cys Gly Val Glu Pro Arg Thr Glu Asp Ser Ser Ala His Met Leu
145                 150                 155                 160

Pro Leu Asp Ser Gln Gly Ala Ser Leu Val
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<210> 18
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<223> PP1 inhibitory peptide

<400> 18

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Asn Lys Thr Ser Ser Thr Ser Ser Arg Val Ala Ser Ala Glu Gln Pro
            20                  25                  30

Arg Gly Ser Val Asp Glu Glu Leu Ser Lys Lys Ser Gln Lys Trp Asp
        35                  40                  45

Glu Met Asn Ile Leu Ala Thr Tyr His Pro Ala Asp Lys Asp Tyr Gly
    50                  55                  60

Leu Met Lys Ile Asp Glu Pro Ser Thr Pro Tyr His Ser Met Ile Gly
65                  70                  75                  80

Asp Asp Asp Asp Ala Tyr Ser Asp Thr Glu Thr Thr Glu Ala Met Thr
                85                  90                  95

Pro Asp Thr Leu Ala Lys Lys Leu Ala Ala Ala Glu Gly Ser Glu Pro
            100                 105                 110

Lys Tyr Arg Ile Arg Glu Gln Glu Ser Ser Gly Glu Glu Asp Ser Asp
        115                 120                 125
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Leu Ser Pro Glu Glu Arg Glu Lys Lys Arg Gln Phe Glu Met Lys Arg
    130                 135                 140

Lys Leu His Tyr Asn Glu Gly Leu Asn Ile Lys Leu Ala Arg Gln Leu
145                 150                 155                 160

Ile Ser Lys Asp Leu His Asp Asp Glu Glu Asp Glu Glu Met Ser Glu
                165                 170                 175

Thr Ala Asp Gly Glu Ser Met Asn Thr Glu Glu Ser Asn Gln Gly Ser
            180                 185                 190

Thr Pro Ser Asp Gln Arg Gln Asn Lys Ser Gln Ser Ser
        195                 200                 205
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<220>
<223> ALOX15 gRNA recognition sequence

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<400> 21
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<210> 22
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