```
ccgccccagc tcagtccgaa ccccgcggcg gcggcggcct cctccacacg cctccacctc      60
cgccgccgcc gccgccgccg ccgcctcccg cgccgctctc cgcccggatg gccaggctga     120
gcccgggaat ggcggagcga gagagcggcc tgagcggggg tgccgcgtcc ccaccggccg     180
cttccccatt cctgggactg cacatcgcgt cgcctcccaa tttcaggctc acccatgata     240
tcagcctgga ggagtttgag gatgaagacc tttcggagat cactgatgag tgtggcatca     300
gcctgcagtg caaagacacc ttgtctctcc ggcccccgcg cgccgggcta ctgtctgcgg     360
gtagcagcgg tagcgcgggg agccggctgc aggcggagat gctgcagatg gacctgatcg     420
acgcggcaag tgacactccg ggcgccgagg acgacgaaga ggacgacgac gagctcgctg     480
cccaacggcc aggagtgggg ccttccaaag ccgagtctgg ccaggagccg gcgtctcgca     540
gccagggtca gggccagggc cccggcacag gctgcggaga cacctaccgg cccaagaggc     600
ctaccacgct caacctttc ccgcaggtgc cgcggtctca ggacacgctg aataataact     660
ctttaggcaa aaagcacagt tggcaggacc gtgtgtctcg atcatcctcc cctctgaaga     720
caggggagca gacgcctcca catgaacata tctgcctgag tgatgagctg ccgccccagg     780
gcagtcctgt tcccacccag gatcgtggca cttccaccga cagcccttgt cgccgtactg     840
cagccaccca gatggcacct ccaagtggtc cccctgccac tgcacctggt ggccggggcc     900
actcccatcg agatcggtcc atatcagcag atgtgcggct cgaggcgact gaggagatct     960
acctgacccc agtgcagagg cccccagacc ctgcagaacc cacctccacc ttcttgccac    1020
ccactgagag ccggatgtct gtcagctcgg atcctgaccc tgccgcttac tctgtaactg    1080
cagggcgacc gcacccttcc atcagtgaag aggatgaggg cttcgactgt ctgtcatccc    1140
cagagcaagc tgagccacca ggtggagggt ggcggggaag cctcggggag ccaccaccgc    1200
ctccacgggc ctcactgagc tcggacacca gcgcactgtc ctacgactct gtcaagtaca    1260
cactggtggt ggatgagcat gcccagcttg agttggtgag cctgcggcca tgttttggag    1320
attacagtga cgaaagcgac tctgccactg tctatgacaa ctgtgcctct gcctcctcgc    1380
cctacgagtc agccattggt gaggaatatg aggaggcccc tcaaccccgg cctcccacct    1440
gcctgtcaga ggactccaca ccggatgagc ctgacgtcca cttctctaag aagtttctga    1500
atgtcttcat gagtggccgc tctcgttcct ccagtgccga gtcctttggg ctgttctcct    1560
gtgtcatcaa tggggaggag catgagcaaa cccatcgggc tatattcagg tttgtgcctc    1620
ggcatgaaga tgaacttgag ctggaagtgg acgaccctct gctggtggag ctgcaggcag    1680
```

Fig. 1

```
aagactattg gtatgaggcc tataacatgc gcactggagc ccgtggtgtc tttcctgcct    1740
actatgccat tgaggtcacc aaggagcctg agcacatggc agcccttgcc aaaaacagcg    1800
actggattga ccagttccgg gtgaagttcc tgggctctgt ccaggttcct tatcacaagg    1860
gcaatgatgt cctctgtgct gctatgcaaa agatcgccac cacccgccgg ctcaccgtgc    1920
actttaaccc gccctccagc tgtgtccttg aaatcagcgt taggggtgtc aagataggtg    1980
tcaaagctga tgaagctcag gaggccaagg gaaataaatg tagccacttt ttccagctaa    2040
aaaacatctc tttctgtggg taccatccaa agaacaacaa gtactttggg tttatcacta    2100
agcaccctgc tgaccaccgg tttgcctgcc atgtctttgt gtctgaagat tccaccaaag    2160
ccctggcaga gtctgtgggg cgtgcatttc agcagttcta caagcaattt gtggaatata    2220
cctgtcctac agaagatatc tacttggagt agcagcaacc cccctctctg cagcccctca    2280
gccccaggcc agtactagga cagctgactg ctgacaggat gttgtactgc cacgagagaa    2340
tgggggagtg agggctgttg gggtcggggg gcaggggttt ggggagaggc agatgcagtt    2400
tattgtaata tatggggtta gattaatcta tggaggacag tacaggctct ctcggggctg    2460
gggaagggca gggctggggt gggggtcagg catctggcca caaaggggtc ccctagggac    2520
agaggcgctg caccatcctg ggcttgtttc atactagagg ccctggcttt ctggctcttg    2580
ggtcctgcct tgacaaagcc cagccacctg gaagtgtcac cttcccttgt ccacctcacc    2640
cagtgccctg agctcatgct gagcccaagc acctccgaag gactttccag taaggaaatg    2700
gcaacatgtg acagtgagac cctgttctca tctgtggggc tccggcagct ccgaccccca    2760
gcctggccag cacgctgacc ctggcaagct tgtgtgttca aagaaggaga gggccacagc    2820
aagccctgcc tgccagggaa ggttccctct cagctggccc cagccaactg gtcactgtct    2880
tgtcacctgg ctactactat taaagtgcca tttcttgtct gaaaaaaaaa aaaaaaaaaa    2940
aaaaaaactc gag                                                      2953
```

Fig. 1 (cont.)

```
Met Ala Arg Leu Ser Pro Gly Met Ala Glu Arg Glu Ser Gly Leu Ser
1               5                  10                  15

Gly Gly Ala Ala Ser Pro Pro Ala Ala Ser Pro Phe Leu Gly Leu His
            20                  25                  30

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

Glu Phe Glu Asp Glu Asp Leu Ser Glu Ile Thr Asp Glu Cys Gly Ile
    50                  55                  60

Ser Leu Gln Cys Lys Asp Thr Leu Ser Leu Arg Pro Pro Arg Ala Gly
65                  70                  75                  80

Leu Leu Ser Ala Gly Ser Ser Gly Ser Ala Gly Ser Arg Leu Gln Ala
                85                  90                  95

Glu Met Leu Gln Met Asp Leu Ile Asp Ala Ala Ser Asp Thr Pro Gly
            100                 105                 110

Ala Glu Asp Asp Glu Glu Asp Asp Asp Glu Leu Ala Ala Gln Arg Pro
        115                 120                 125

Gly Val Gly Pro Ser Lys Ala Glu Ser Gly Gln Glu Pro Ala Ser Arg
    130                 135                 140

Ser Gln Gly Gln Gly Gln Gly Pro Gly Thr Gly Cys Gly Asp Thr Tyr
145                 150                 155                 160

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe Pro Gln Val Pro Arg
                165                 170                 175

Ser Gln Asp Thr Leu Asn Asn Asn Ser Leu Gly Lys Lys His Ser Trp
            180                 185                 190

Gln Asp Arg Val Ser Arg Ser Ser Ser Pro Leu Lys Thr Gly Glu Gln
        195                 200                 205

Thr Pro Pro His Glu His Ile Cys Leu Ser Asp Glu Leu Pro Pro Gln
    210                 215                 220

Gly Ser Pro Val Pro Thr Gln Asp Arg Gly Thr Ser Thr Asp Ser Pro
225                 230                 235                 240

Cys Arg Arg Thr Ala Ala Thr Gln Met Ala Pro Pro Ser Gly Pro Pro
                245                 250                 255
```

Fig. 2

```
Ala Thr Ala Pro Gly Gly Arg Gly His Ser His Arg Asp Arg Ser Ile
260                 265                 270

Ser Ala Asp Val Arg Leu Glu Ala Thr Glu Glu Ile Tyr Leu Thr Pro
275                 280                 285

Val Gln Arg Pro Pro Asp Pro Ala Glu Pro Thr Ser Thr Phe Leu Pro
290                 295                 300

Pro Thr Glu Ser Arg Met Ser Val Ser Ser Asp Pro Asp Pro Ala Ala
305                 310                 315                 320

Tyr Ser Val Thr Ala Gly Arg Pro His Pro Ser Ile Ser Glu Glu Asp
                325                 330                 335

Glu Gly Phe Asp Cys Leu Ser Ser Pro Glu Gln Ala Glu Pro Pro Gly
            340                 345                 350

Gly Gly Trp Arg Gly Ser Leu Gly Glu Pro Pro Pro Pro Pro Arg Ala
        355                 360                 365

Ser Leu Ser Ser Asp Thr Ser Ala Leu Ser Tyr Asp Ser Val Lys Tyr
    370                 375                 380

Thr Leu Val Val Asp Glu His Ala Gln Leu Glu Leu Val Ser Leu Arg
385                 390                 395                 400

Pro Cys Phe Gly Asp Tyr Ser Asp Glu Ser Asp Ser Ala Thr Val Tyr
                405                 410                 415

Asp Asn Cys Ala Ser Ala Ser Ser Pro Tyr Glu Ser Ala Ile Gly Glu
            420                 425                 430

Glu Tyr Glu Glu Ala Pro Gln Pro Arg Pro Pro Thr Cys Leu Ser Glu
        435                 440                 445

Asp Ser Thr Pro Asp Glu Pro Asp Val His Phe Ser Lys Lys Phe Leu
    450                 455                 460

Asn Val Phe Met Ser Gly Arg Ser Arg Ser Ser Ser Ala Glu Ser Phe
465                 470                 475                 480

Gly Leu Phe Ser Cys Val Ile Asn Gly Glu Glu His Glu Gln Thr His
                485                 490                 495

Arg Ala Ile Phe Arg Phe Val Pro Arg His Glu Asp Glu Leu Glu Leu
            500                 505                 510
```

Fig. 2 (cont.)

```
Glu Val Asp Asp Pro Leu Leu Val Glu Leu Gln Ala Glu Asp Tyr Trp
        515                 520                 525

Tyr Glu Ala Tyr Asn Met Arg Thr Gly Ala Arg Gly Val Phe Pro Ala
    530                 535                 540

Tyr Tyr Ala Ile Glu Val Thr Lys Glu Pro Glu His Met Ala Ala Leu
545                 550                 555                 560

Ala Lys Asn Ser Asp Trp Ile Asp Gln Phe Arg Val Lys Phe Leu Gly
                565                 570                 575

Ser Val Gln Val Pro Tyr His Lys Gly Asn Asp Val Leu Cys Ala Ala
            580                 585                 590

Met Gln Lys Ile Ala Thr Thr Arg Arg Leu Thr Val His Phe Asn Pro
        595                 600                 605

Pro Ser Ser Cys Val Leu Glu Ile Ser Val Arg Gly Val Lys Ile Gly
    610                 615                 620

Val Lys Ala Asp Glu Ala Gln Glu Ala Lys Gly Asn Lys Cys Ser His
625                 630                 635                 640

Phe Phe Gln Leu Lys Asn Ile Ser Phe Cys Gly Tyr His Pro Lys Asn
                645                 650                 655

Asn Lys Tyr Phe Gly Phe Ile Thr Lys His Pro Ala Asp His Arg Phe
            660                 665                 670

Ala Cys His Val Phe Val Ser Glu Asp Ser Thr Lys Ala Leu Ala Glu
        675                 680                 685

Ser Val Gly Arg Ala Phe Gln Gln Phe Tyr Lys Gln Phe Val Glu Tyr
    690                 695                 700

Thr Cys Pro Thr Glu Asp Ile Tyr Leu Glu
705                 710
```

Fig. 2 (cont.)

```
Met Ala Glu Arg Glu Ser Gly Gly Leu Gly Gly Gly Ala Ala Ser Pro
1               5                  10                  15

Pro Ala Ala Ser Pro Phe Leu Gly Leu His Ile Ala Ser Pro Pro Asn
            20                  25                  30

Phe Arg Leu Thr His Asp Ile Ser Leu Glu Glu Phe Glu Asp Glu Asp
        35                  40                  45

Leu Ser Glu Ile Thr Asp Glu Cys Gly Ile Ser Leu Gln Cys Lys Asp
    50                  55                  60

Thr Leu Ser Leu Arg Pro Pro Arg Ala Gly Leu Leu Ser Ala Gly Gly
65                  70                  75                  80

Gly Gly Ala Gly Ser Arg Leu Gln Ala Glu Met Leu Gln Met Asp Leu
                85                  90                  95

Ile Asp Ala Thr Gly Asp Thr Pro Gly Ala Glu Asp Asp Glu Glu Asp
            100                 105                 110

Asp Asp Glu Glu Arg Ala Ala Arg Arg Pro Gly Ala Gly Pro Pro Lys
        115                 120                 125

Ala Glu Ser Gly Gln Glu Pro Ala Ser Arg Gly Gln Gly Gln Ser Gln
    130                 135                 140

Gly Gln Ser Gln Gly Pro Gly Ser Gly Asp Thr Tyr Arg Pro Lys Arg
145                 150                 155                 160

Pro Thr Thr Leu Asn Leu Phe Pro Gln Val Pro Arg Ser Gln Asp Thr
                165                 170                 175

Leu Asn Asn Asn Ser Leu Gly Lys Lys His Ser Trp Gln Asp Arg Val
            180                 185                 190

Ser Arg Ser Ser Ser Pro Leu Lys Thr Gly Glu Gln Thr Pro Pro His
        195                 200                 205

Glu His Ile Cys Leu Ser Asp Glu Leu Pro Pro Gln Ser Gly Pro Ala
    210                 215                 220

Pro Thr Thr Asp Arg Gly Thr Ser Thr Asp Ser Pro Cys Arg Arg Ser
225                 230                 235                 240

Thr Ala Thr Gln Met Ala Pro Pro Gly Gly Pro Pro Ala Ala Pro Pro
                245                 250                 255
```

Fig. 3

```
Gly Gly Arg Gly His Ser His Arg Asp Arg Ile His Tyr Gln Ala Asp
            260                 265                 270

Val Arg Leu Glu Ala Thr Glu Glu Ile Tyr Leu Thr Pro Val Gln Arg
        275                 280                 285

Pro Pro Asp Ala Ala Glu Pro Thr Ser Ala Phe Leu Pro Pro Thr Glu
    290                 295                 300

Ser Arg Met Ser Val Ser Ser Asp Pro Asp Pro Ala Ala Tyr Pro Ser
305                 310                 315                 320

Thr Ala Gly Arg Pro His Pro Ser Ile Ser Glu Glu Glu Glu Gly Phe
                325                 330                 335

Asp Cys Leu Ser Ser Pro Glu Arg Ala Glu Pro Pro Gly Gly Gly Trp
            340                 345                 350

Arg Gly Ser Leu Gly Glu Pro Pro Pro Pro Pro Arg Ala Ser Leu Ser
        355                 360                 365

Ser Asp Thr Ser Ala Leu Ser Tyr Asp Ser Val Lys Tyr Thr Leu Val
    370                 375                 380

Val Asp Glu His Ala Gln Leu Glu Leu Val Ser Leu Arg Pro Cys Phe
385                 390                 395                 400

Gly Asp Tyr Ser Asp Glu Ser Asp Ser Ala Thr Val Tyr Asp Asn Cys
                405                 410                 415

Ala Ser Val Ser Ser Pro Tyr Glu Ser Ala Ile Gly Glu Glu Tyr Glu
            420                 425                 430

Glu Ala Pro Arg Pro Gln Pro Pro Ala Cys Leu Ser Glu Asp Ser Thr
        435                 440                 445

Pro Asp Glu Pro Asp Val His Phe Ser Lys Lys Phe Leu Asn Val Phe
    450                 455                 460

Met Ser Gly Arg Ser Arg Ser Ser Ser Ala Glu Ser Phe Gly Leu Phe
465                 470                 475                 480

Ser Cys Ile Ile Asn Gly Glu Glu Gln Glu Gln Thr His Arg Ala Ile
                485                 490                 495

Phe Arg Phe Val Pro Arg His Glu Asp Glu Leu Glu Leu Glu Val Asp
            500                 505                 510
```

Fig. 3 (cont.)

```
Asp Pro Leu Leu Val Glu Leu Gln Ala Glu Asp Tyr Trp Tyr Glu Ala
515                 520                 525

Tyr Asn Met Arg Thr Gly Ala Arg Gly Val Phe Pro Ala Tyr Tyr Ala
530                 535                 540

Ile Glu Val Thr Lys Glu Pro Glu His Met Ala Ala Leu Ala Lys Asn
545                 550                 555                 560

Ser Asp Trp Val Asp Gln Phe Arg Val Lys Phe Leu Gly Ser Val Gln
                565                 570                 575

Val Pro Tyr His Lys Gly Asn Asp Val Leu Cys Ala Ala Met Gln Lys
            580                 585                 590

Ile Ala Thr Thr Arg Arg Leu Thr Val His Phe Asn Pro Pro Ser Ser
        595                 600                 605

Cys Val Leu Glu Ile Ser Val Arg Gly Val Lys Ile Gly Val Lys Ala
    610                 615                 620

Asp Asp Ser Gln Glu Ala Lys Gly Asn Lys Cys Ser His Phe Phe Gln
625                 630                 635                 640

Leu Lys Asn Ile Ser Phe Cys Gly Tyr His Pro Lys Asn Asn Lys Tyr
                645                 650                 655

Phe Gly Phe Ile Thr Lys His Pro Ala Asp His Arg Phe Ala Cys His
            660                 665                 670

Val Phe Val Ser Glu Asp Ser Thr Lys Ala Leu Ala Glu Ser Val Gly
        675                 680                 685

Arg Ala Phe Gln Gln Phe Tyr Lys Gln Phe Val Glu Tyr Thr Cys Pro
    690                 695                 700

Thr Glu Asp Ile Tyr Leu Glu
705                 710
```

Fig. 3 (cont.)

```
atggcggagc gagaaagcgg cggcctggga ggggggccg cgtccccgcc cgccgcctcc      60
ccgttcctgg ggctgcacat cgcttcgcct cccaatttca ggctcaccca tgacatcagc     120
ctggaggagt ttgaggatga agacctctcg gagatcactg atgagtgtgg catcagctta     180
cagtgcaaag acaccctgtc cttacggccc ccgcgcgccg ggctgctctc tgcgggcggc     240
ggcggcgcgg ggagccggtt gcaggccgag atgctgcaga tggacctgat cgacgcgacg     300
ggggacactc ccggggccga ggacgacgag gaggacgacg acgaggagcg cgcggcccgg     360
cggccgggag cggggccgcc caaggccgag tccggccagg agccggcgtc ccgcggccag     420
ggccagagcc aaggccagag ccagggcccg ggcagcgggg acacgtaccg gcccaagcgg     480
cccaccacgc tcaacctctt tccgcaggtg ccgcggtctc aggacacact gaataataat     540
tctctgggca aaaagcacag ttggcaggat cgggtgtctc gatcatcctc acccctgaag     600
acaggggagc agacaccacc gcatgaacac atctgcctga gcgatgagct gccccccccag    660
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acagccaccc agatggcacc tccgggtggt ccccctgctg ccccgcctgg gggtcggggc     780
cactcgcatc gagaccgaat ccactaccag gccgatgtgc gactagaggc cactgaggag     840
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tccccagagc gggctgagcc cccaggcgga gggtggcggg ggagcctggg ggagccgccg    1080
ccacctccac gggcctctct gagctcggac accagcgccc tgtcctatga ctctgtcaag    1140
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gcctgcctct ccgaggactc cacgcctgat gaacccgacg tccatttctc caagaaattc    1380
ctgaacgtct tcatgagtgg ccgctcccgc tcctccagtg ctgagtcctt cgggctgttc    1440
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cctcgacacg aagacgaact tgagctggaa gtggatgacc ctctgctagt ggagctccag    1560
gctgaagact actggtacga ggcctacaac atgcgcactg gtgcccgggg tgtctttcct    1620
gcctattacg ccatcgaggt caccaaggag cccgagcaca tggcagccct ggccaaaaac    1680
agtgactggg tggaccagtt ccgggtgaag ttcctgggct cagtccaggt tccctatcac    1740
```

Fig. 4

```
aagggcaatg acgtcctctg tgctgctatg caaaagattg ccaccacccg ccggctcacc    1800
gtgcacttta acccgccctc cagctgtgtc ctggagatca gcgtgcgggg tgtgaagata    1860
ggcgtcaagg ccgatgactc ccaggaggcc aaggggaata aatgtagcca ctttttccag    1920
ttaaaaaaca tctctttctg cggatatcat ccaaagaaca acaagtactt tgggttcatc    1980
accaagcacc ccgccgacca ccggtttgcc tgccacgtct ttgtgtctga agactccacc    2040
aaagccctgg cagagtccgt ggggagagca ttccagcagt tctacaagca gtttgtggag    2100
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```

Fig. 4 (cont.)

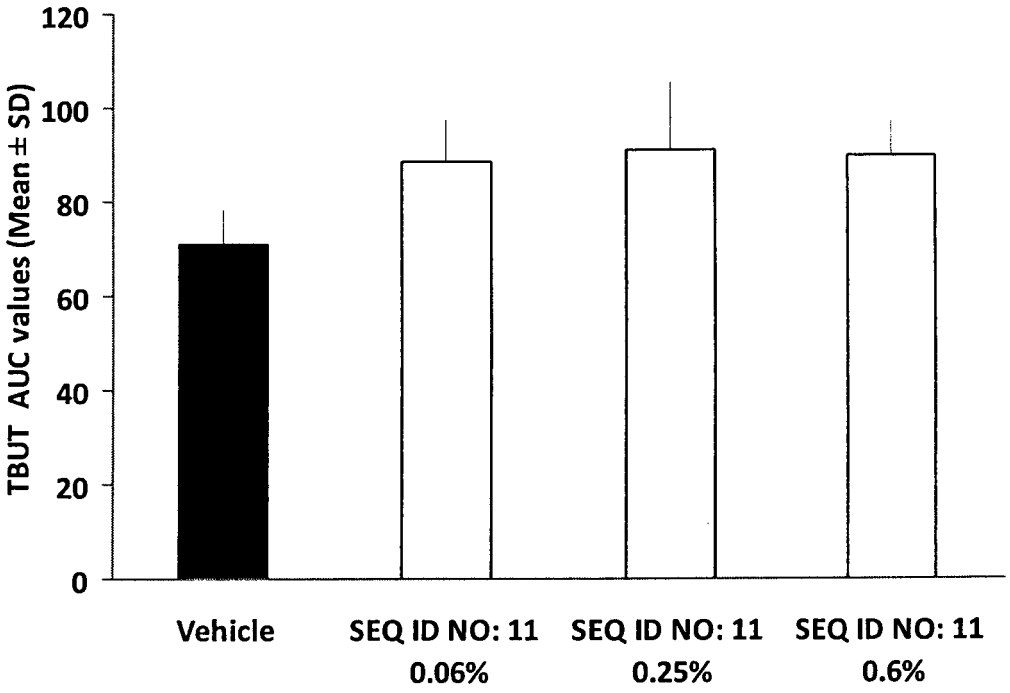

120
100
80
60
40
20
0
TBUT AUC values (Mean ± SD)
Vehicle
SEQ ID NO: 11 0.06%
SEQ ID NO: 11 0.25%
SEQ ID NO: 11 0.6%

Fig. 5

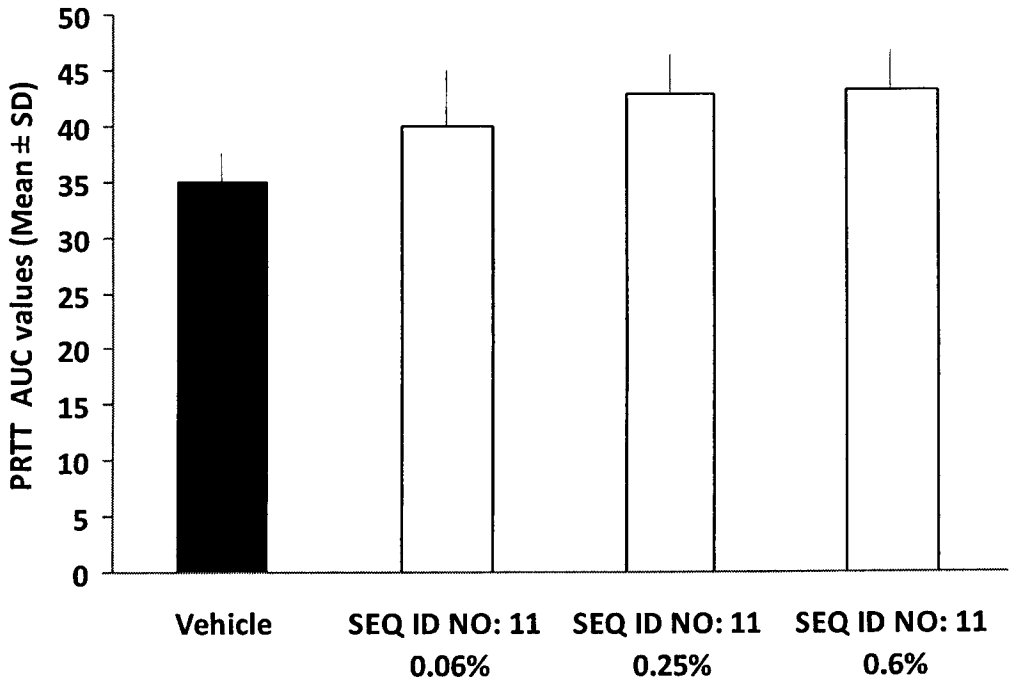

PRTT AUC values (Mean ± SD)
50
45
40
35
30
25
20
15
10
5
0
Vehicle
SEQ ID NO: 11 0.06%
SEQ ID NO: 11 0.25%
SEQ ID NO: 11 0.6%

Fig. 6

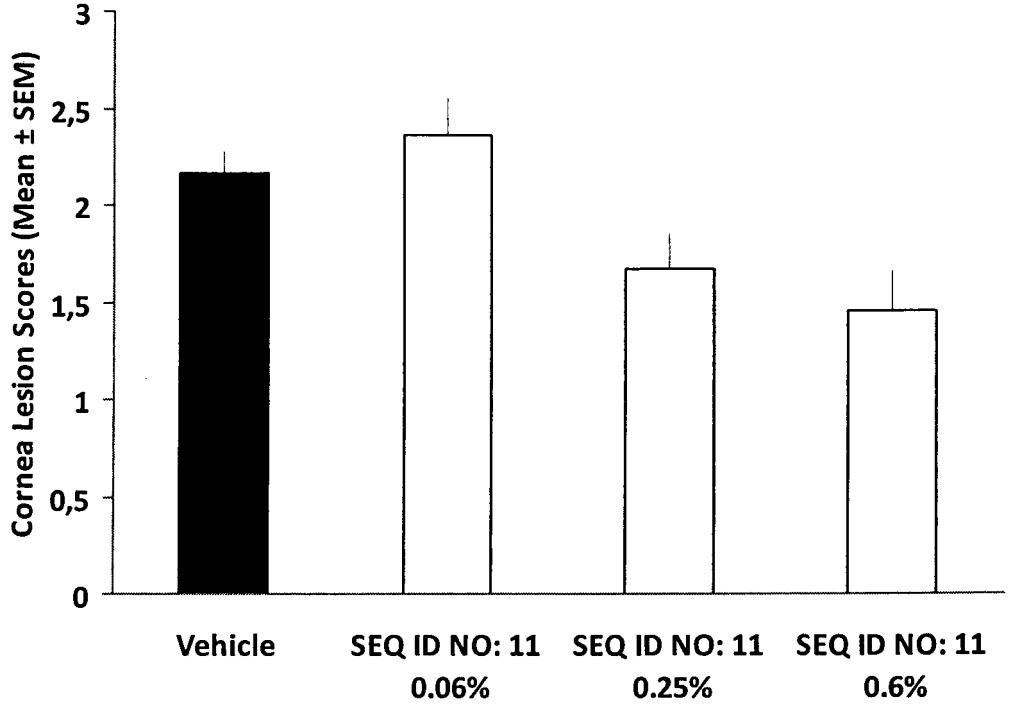

Cornea Lesion Scores (Mean ± SEM)
3
2,5
2
1,5
1
0,5
0
Vehicle
SEQ ID NO: 11 0.06%
SEQ ID NO: 11 0.25%
SEQ ID NO: 11 0.6%

Fig. 7