REPLACEMENT SHEET
17 OCT 2003

Band 55 protein

```
                10        20        30        40        50
ISR      MESAEEPLPARPALETEGLRFLHVTVGSLLASYGWYVLFSCILLYIVIQK
MOUSE    -DRD----S-@------S-*----------------I-----------R
RAT         ---S--------S------------------I----V--------
HUMAN    --RQ--S-S--------------T-------T----IV-------V-F--

                60        70        80        90        100
ISR      LSVRLRALRQRQLDQADAVLEPDAVVKRQEALAAARLRMQEDLNAQVEKH
MOUSE    --L-------------ET-----V--------------------------
RAT      --L-------------E------V--------------------------
HUMAN    --A-----------R-A-AV---V-------------K---E--------

                110       120       130       140       150
ISR      KEKLRQLEEEKRRQKIEMWDSMQEGRSYRRNPGRPQEEDGPGPSTSSSVT
MOUSE    ----------------------------K--S-------------/---I
RAT      ----------------------------K----------------/---I
HUMAN    ----K--------------------K--KG-AKK-----S-----/---L

                160       170       180       189
ISR      RKGKSDKKPLRGNGYNPLTGEGGGTCAWRPGRRGPSSGG
MOUSE    P-----------G-------------S------------
RAT      P-----------G-----
HUMAN    /-R---R-----G-----S-----A- S------------
```

@=R or S
* = R or Q
A= mixture of A and V

Figure 1

REPLACEMENT SHEET
17 OCT 2003

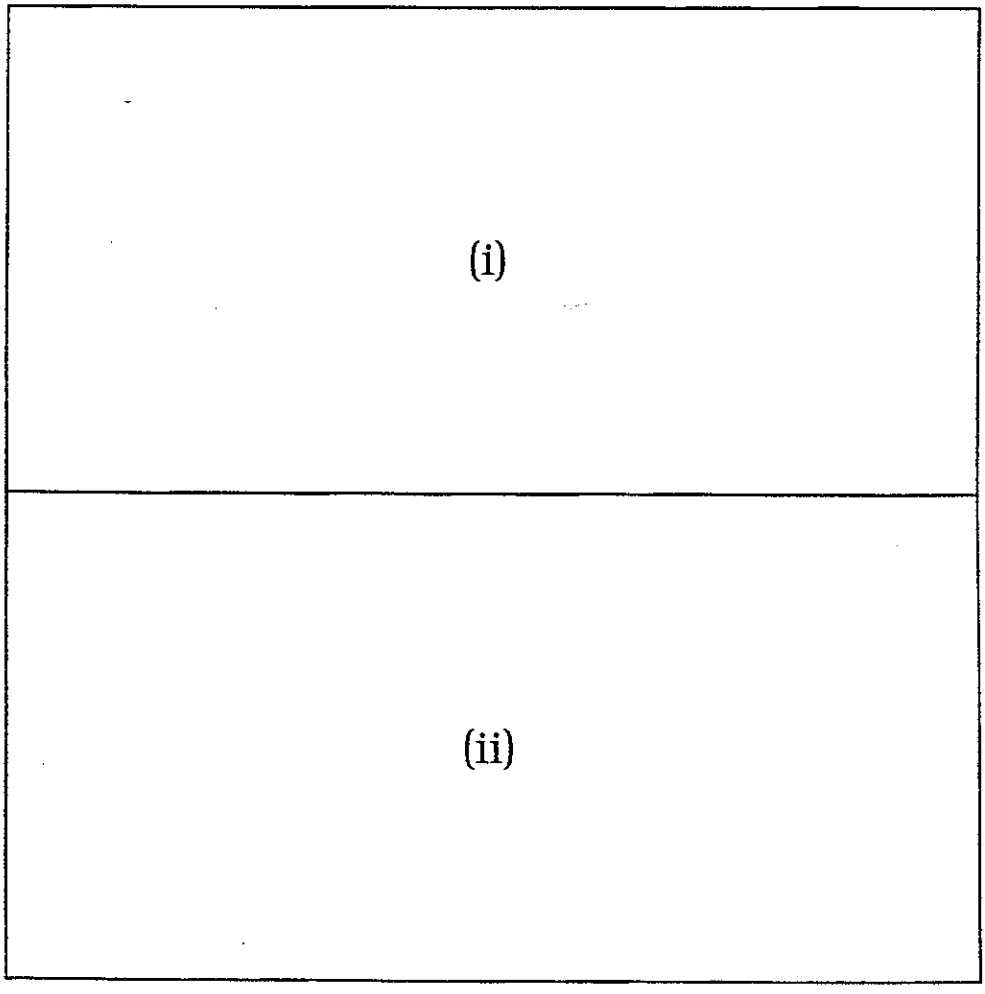
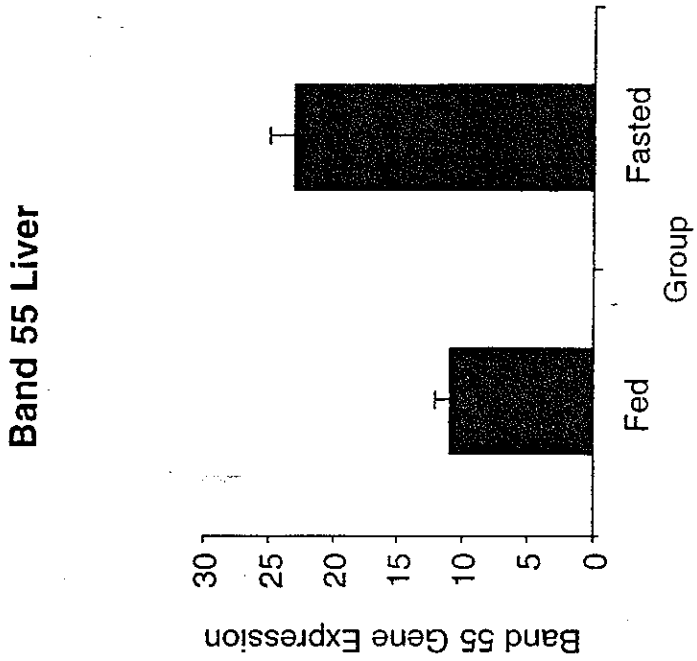


Figure 2


Band 55 Liver
Band 55 Gene Expression
30
25
20
15
10
5
0
Fed
Fasted
Group

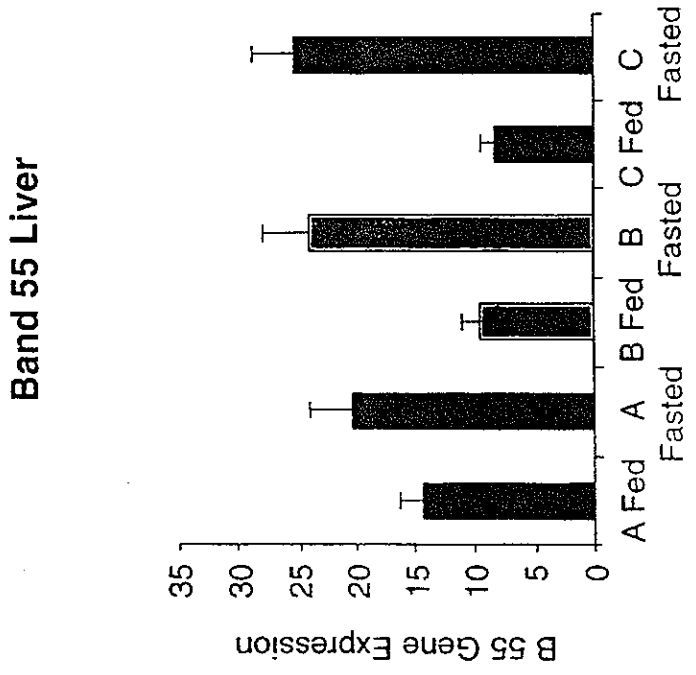

Band 55 Liver
B 55 Gene Expression
35
30
25
20
15
10
5
0
A Fed
A
Fasted
B Fed
B
Fasted
C Fed
C
Fasted

Figure 2(i)

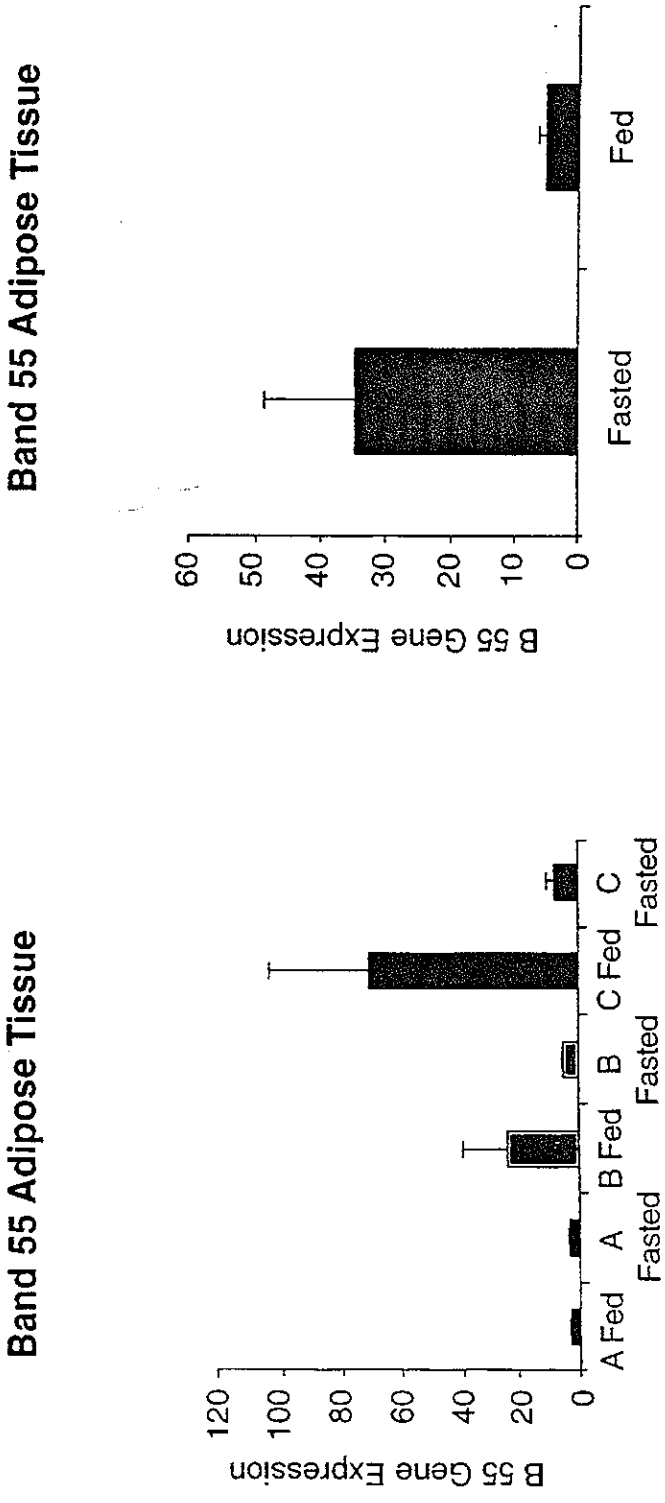

Band 55 Adipose Tissue
B 55 Gene Expression
0
10
20
30
40
50
60
Fasted
Fed
Band 55 Adipose Tissue
B 55 Gene Expression
0
20
40
60
80
100
120
A Fed
A Fasted
B Fed
B Fasted
C Fed
C Fasted

Figure 2(ii)

REPLACEMENT SHEET
17 OCT 2003

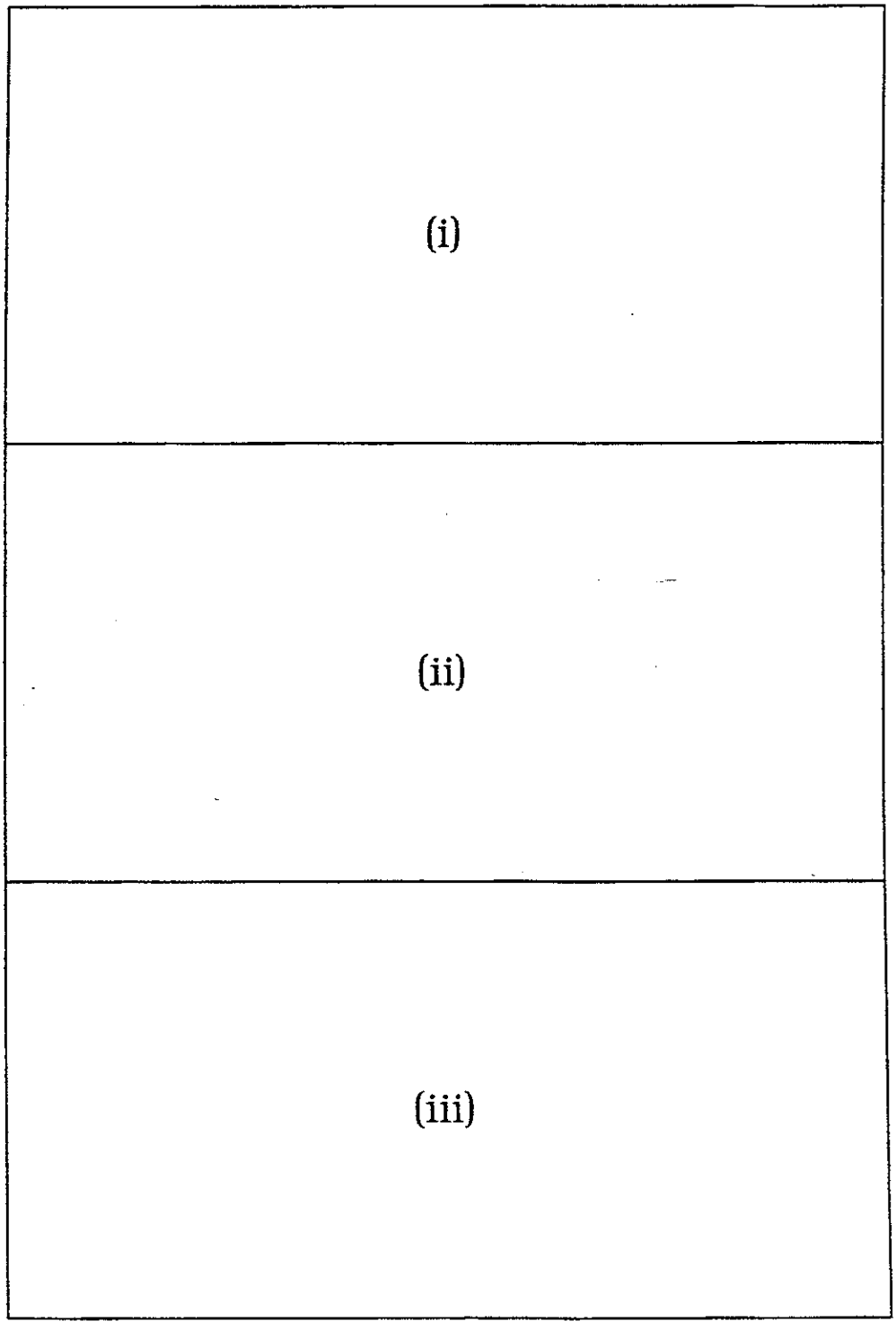


Figure 3

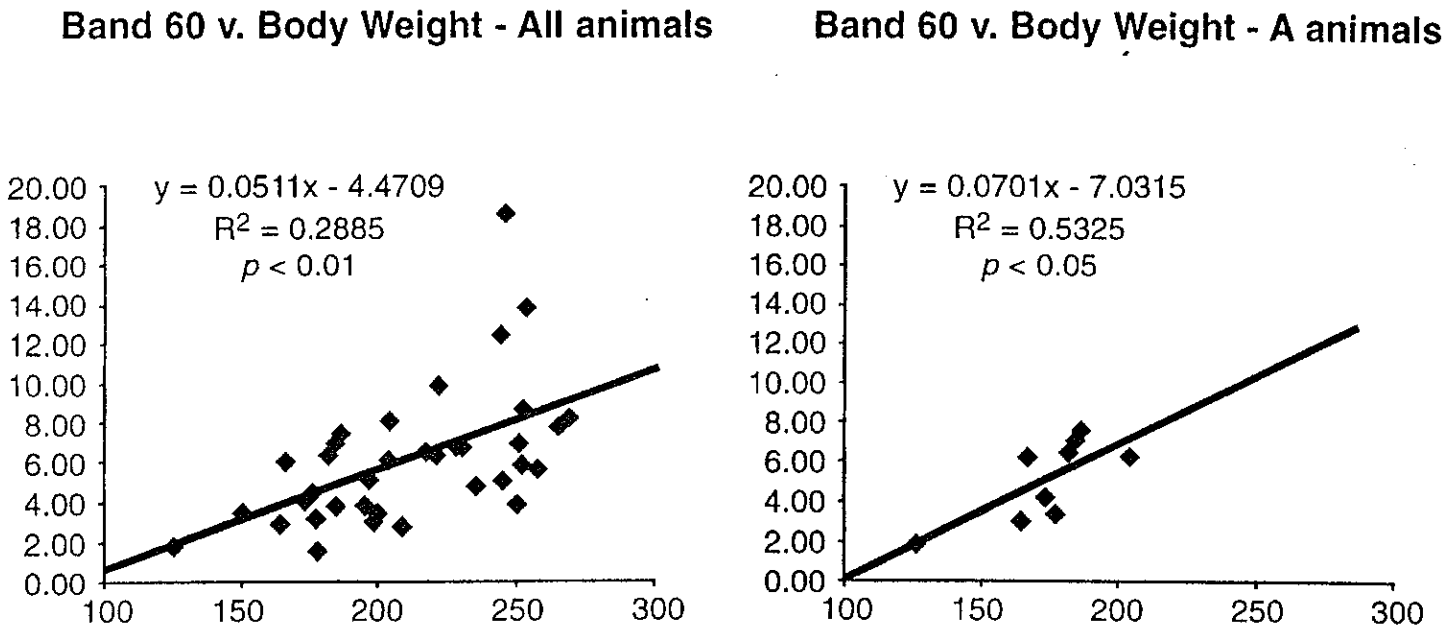


Figure 3(i)

REPLACEMENT SHEET
17 OCT 2003

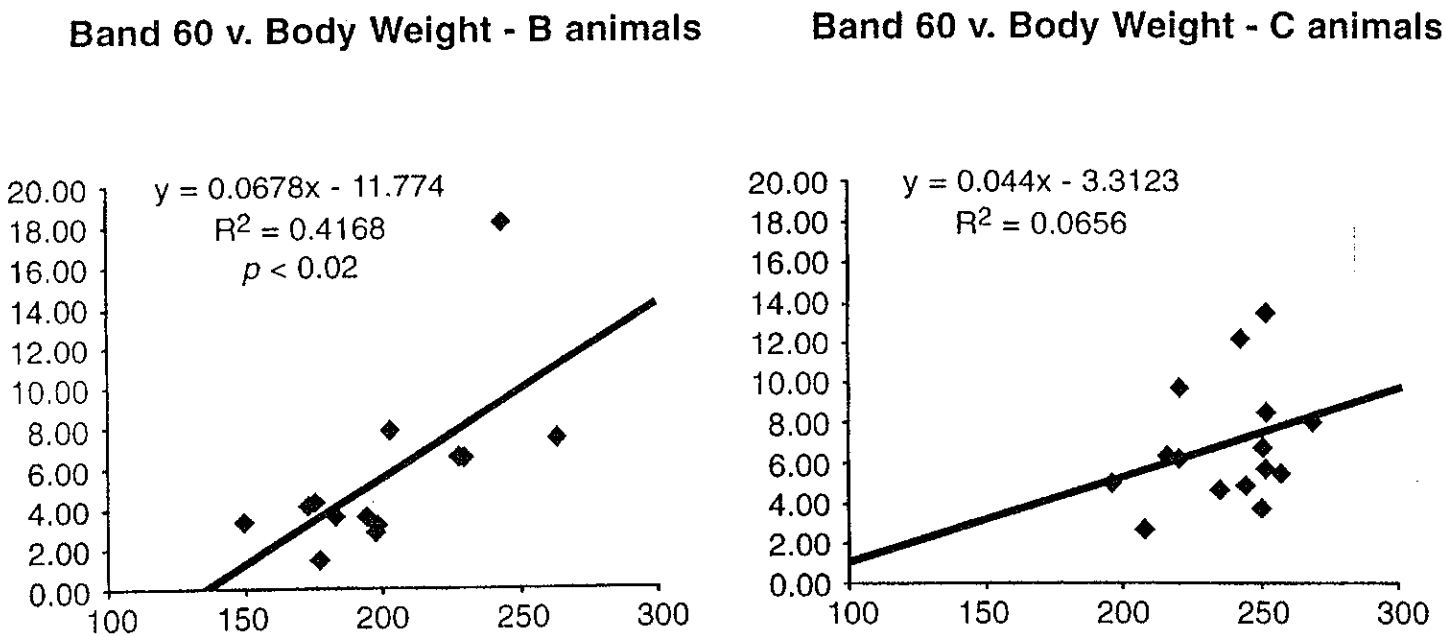


Figure 3(ii)

REPLACEMENT SHEET
17 OCT 2003

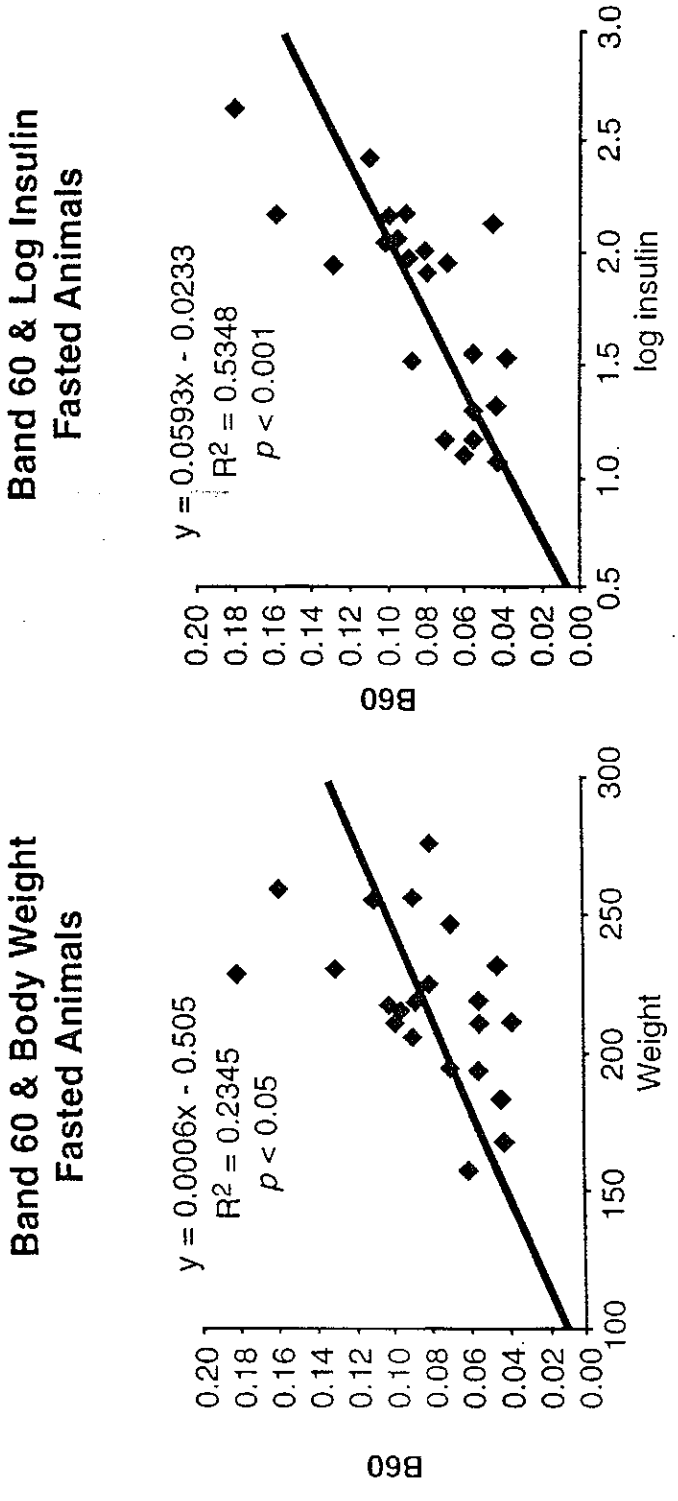

Band 60 & Log Insulin
Fasted Animals
y = 0.0593x - 0.0233
R2 = 0.5348
p < 0.001
B60
log insulin
Band 60 & Body Weight
Fasted Animals
y = 0.0006x - 0.505
R2 = 0.2345
p < 0.05
B60
Weight

Figure 3(iii)

REPLACEMENT SHEET
17 OCT 2003

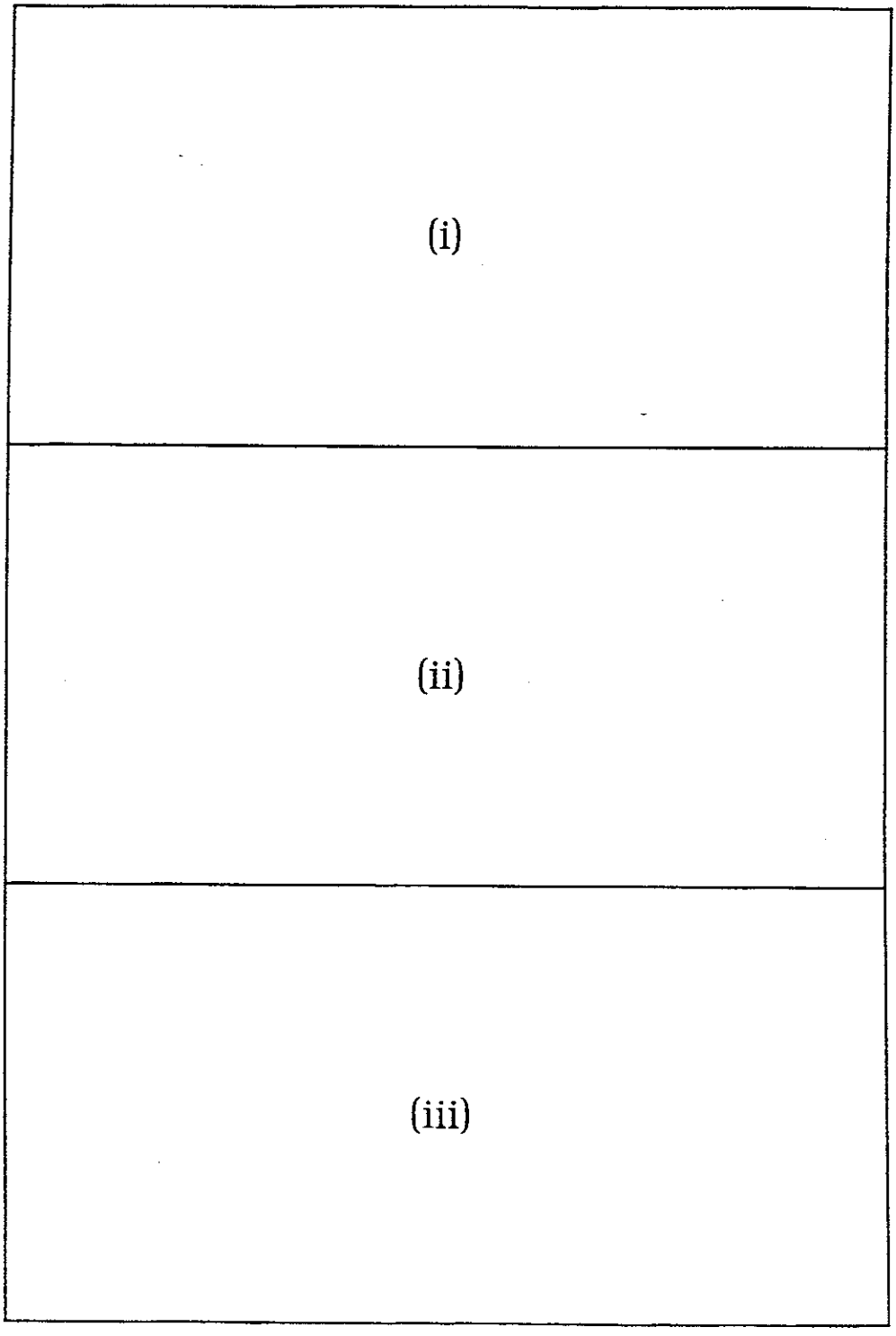
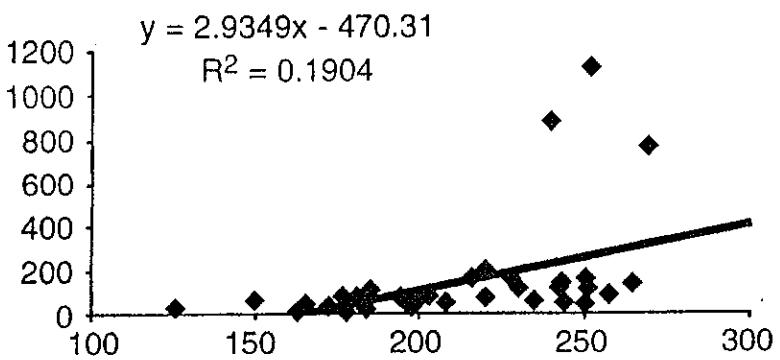


Figure 4

LIVER

Band 38 v. Body weight - All animals



Band 38 v. Body weight - A animals

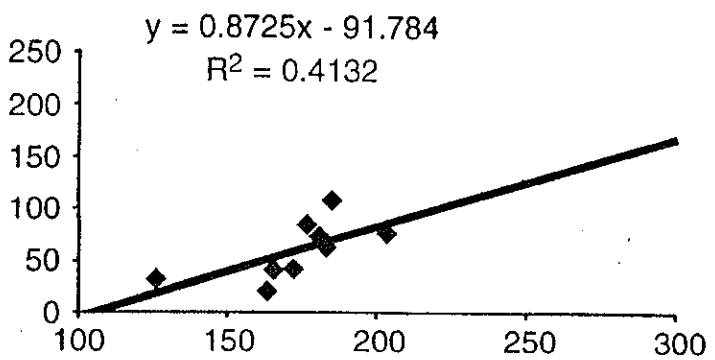


Figure 4(i)

REPLACEMENT SHEET
17 OCT 2003

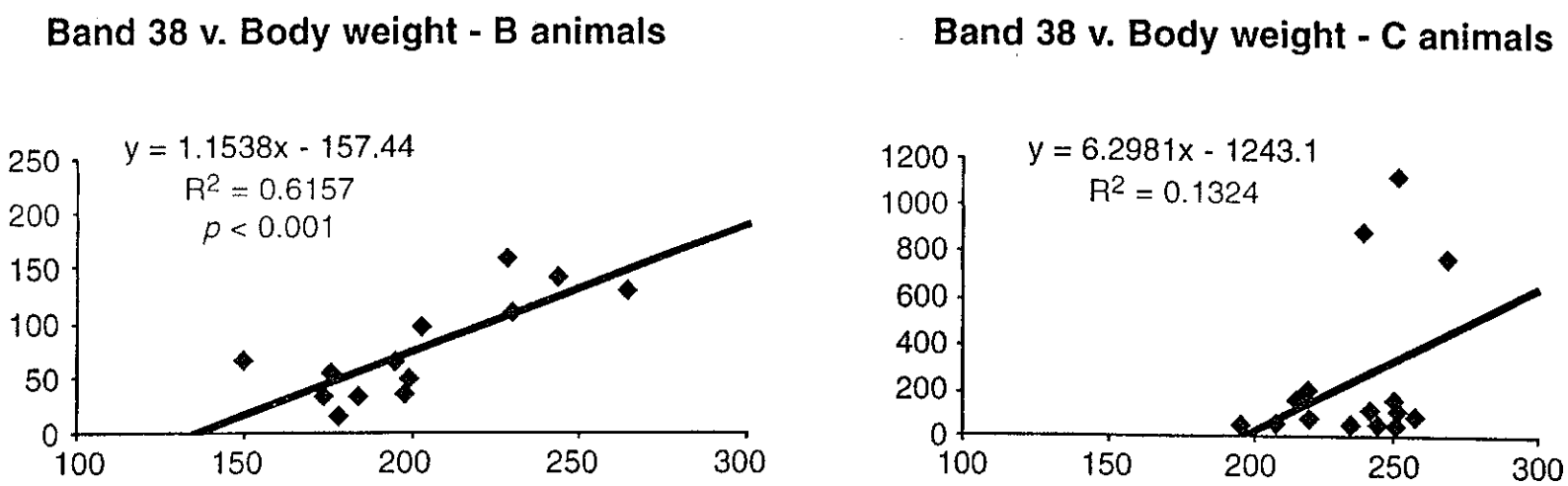


Figure 4(ii)

REPLACEMENT SHEET
17 OCT 2003

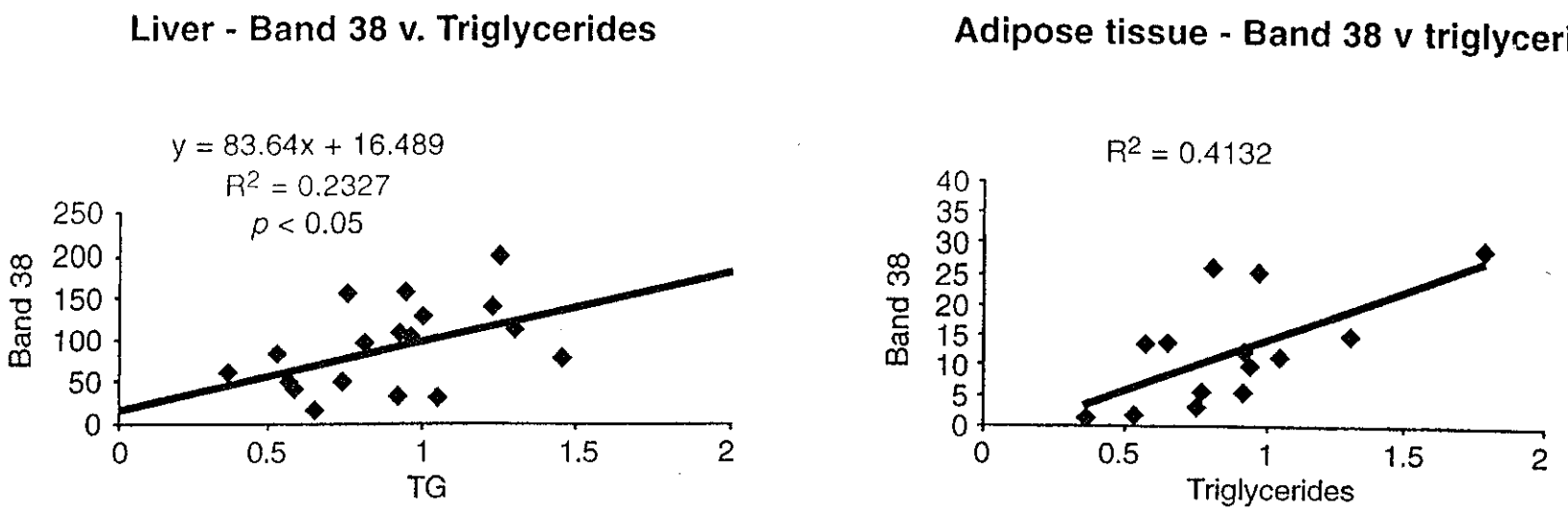


Figure 4(iii)

REPLACEMENT SHEET
17 OCT 2003

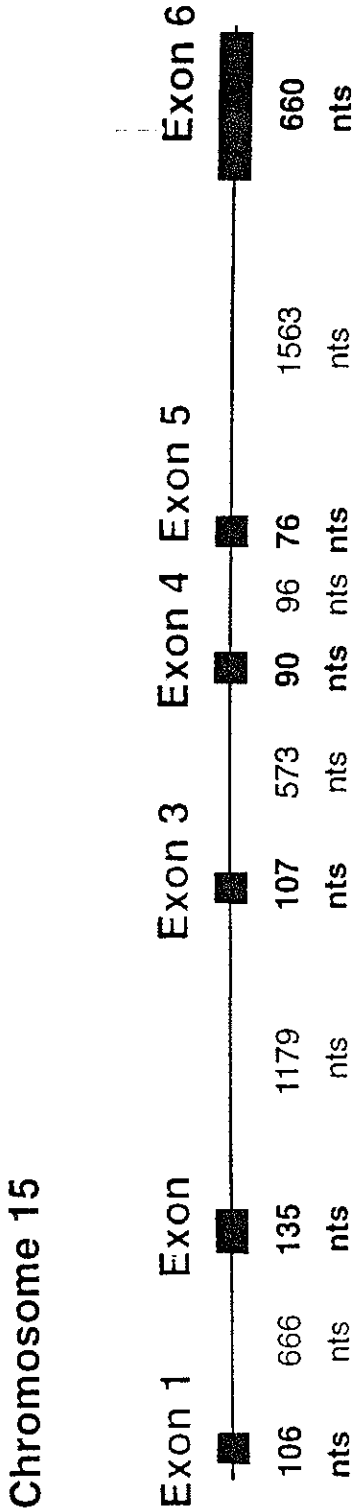

Genomic structure of the human band 55 gene
Chromosome 15
Exon 1
106 nts
666 nts
Exon
135 nts
1179 nts
Exon 3
107 nts
573 nts
Exon 4
90 nts
96 nts
Exon 5
76 nts
1563 nts
Exon 6
660 nts

Figure 5

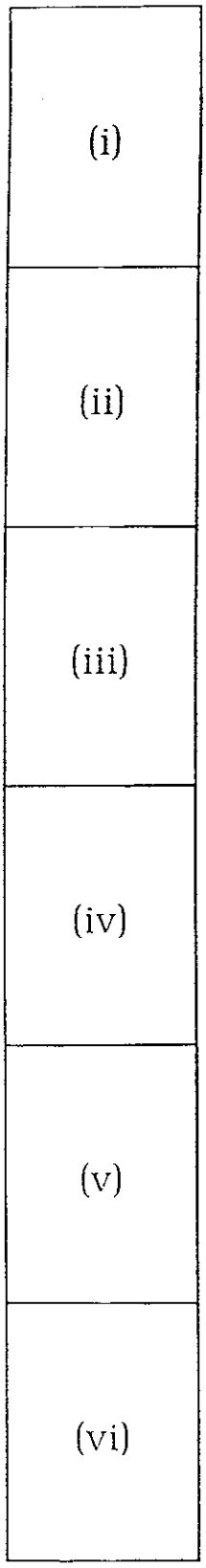


Figure 6

```
  1  CAGGGCTGGG CGGCGGCGGC GGCGGCGGTC ATGGAACGCC AAGAGGAGTC
     ↑                                ↑
     Transcription initiation site    translation start codon
     start exon 1
 51  TCTGTCCGCG CGGCCGGCCC TGGAGACCGA GGGGCTGCGC TTCCTGCACA

101  CCACGGGTGA GTCGTTGCGG GGCAGCCGGG CGCGCGCCGC CACTTTTGCG
           ↑
           end exon 1

151  ACGCGCAGCC ATGATGGGTG GGTCGTCCGC CGCTGCACCG GGCGCCGGAG

201  CCTGGGAGGC CTGGGAACGG TCGGGCGTTG GCGCTTACGC GGACCTTGGG

251  CAGCAGGCCC GGACCTTGCG CGGAGGCTTC TCGGGAGCCG CACTTCCCTG

301  GGCGGCTCGG CTGTCCCTTG TTTGCGCAAG TCTTTTTTGC GAACCAAGCC

351  CTTCCTGTGG TAGTTACTGG GGTCACTCGG CCGTTGGCGT TTGCCTCTGG

401  GACCCGTCCC ACACAGCCCC ATACACACTC CTGACTCCCC GCGCTGTCAC

451  CCCTTTCTAT GTGGCTCTGA AAGGCCTTTG CCTTCCTGAT TCAGATTAGT

501  TGCTCTTCAT TCTTCAAAAC CCAGTTGCTG TGCCCTCCAC ACTCTAACTG

551  CCCCCGACTC CCCAGATGGT TGGGAAGTCT CACTTCTCAG TGATCCCTGA

601  ATTGTCGCAC TTCTTGAGTT CGTGTTTTAA CGATCTACTT AGGAGGCTTT

651  TTCCTCAGCC TAGACCATGA AGGCTTTGAG GGCAGGAGTT ACACTTTGTG

701  TTTGTTGAGT CTTATGGAAA GGTCAACTAG TAGTGTCATT TTTAGTTTTT

751  TGAAAACTGT TTTTCTTTTC AGTGGGCTCC CTGCTGGCCA CCTATGGCTG
                             ↑
                             start exon 2

801  GTACATCGTC TTCAGCTGCA TCCTTCTCTA CGTGGTCTTT CAGAAGCTTT

851  CCGCCCGGCT AAGAGCCTTG AGGCAGAGGC AGCTGGACCG AGCTGCGGCT

901  GCTGTGGGTT AGTGCCTGAT AACCGAAATG AAAGCGGTGG TTTTGCACCT
           ↑
           end exon 2
```

Figure 6(i)

```
 951  CCTTTATATT AAGAGTTAGT CTCTTAGTAA AAGTAAGAGG GGCCACACAG
1001  GAAGACCCTG TCTCTATTTA AAAAAAAAAA AAATAGCCGG GAGTGGCGGC
1051  ACGCACCTGT AGTCCCAGCT GCTCAGGAGG CTGAGGCGGG ATAATCACTT
1101  GAGTCCAGGG AGTCAAAGCT GCAGTGGGCT ATGCTCGGGC CACACTACAC
1151  TCCAGCCTGG GCAATTGATT GAGACCTTGT CTTTAAAAAA AAAAAAAAAA
1201  AAAAAGTAGG AAGTATATGG TTCTCGGTGG GGCGCGGTGG CTCACACCTG
1251  TAATCCCAGC ACTTTGGGAA GCCGAGGCAG GAGGATGACT TGAGGTCAGG
1301  GGTTCGAGAA CAGCCTGGCC AACATGGTGA AACCCTGTCT CTACTAAAAA
1351  TACAAATATT AGTGGGGCGT GGTGACGGGC ACCTGTAATC CCAGCTATTA
1401  GGGTGGCTGA GGCAGGAGAA ATCGCTTGAA CCTGGGAGCT GGAGATTGCA
1451  GTGAGCTGAG ATTGTGCCAC TGCACTCCAG CCTGGGCAAC AGAGTGAGAC
1501  TGTCTTTTCT TTCTTTTTTT TTTTTTTTTC TATGAGATGG AGTCTAGCCT
1551  TGTTGCAAAG AGCGAGACTC TATGAGTAGA CGTTATGAAT AGAAATGAGT
1601  TCATTTCTAT TCATAATGCT ATTTGGAAGG ATTTTTCTTT TCTGTAGAAA
1651  CAAATACTTA AGAATCTTCT GCGCTAATTA AGGGATGGAT AATGATTTAG
1701  AAAACTTTAT ATTTCCTTGG TAGTCTTCCA GGATTCTAGT CAGCCTAGAG
1751  ACTGTGGGTG TCACTGAGGT ATCCAAGATG TGCTCTGTGT GGCCACTATC
1801  CCAGGCTTTA TGAATCGGAA TTGCTCAGGG GAACTCAGAA ATTGGCATTT
1851  CTAACAGATT TCTGGTGATG TAGATATTTC GGGCTAAAAT CCGTGGCTCA
1901  GCAACAGACC CCTGCCCCCT GAAGCAGTAA AATGTATGCA GAGGGGTTAG
1951  GAGTACTTAT GTAAAAATAT GTTGTTTCAT TGTCTGATAT CCATACCTCT
2001  TTATACTTTT AATAATATGG ACACTCAAAA GTTTCTATTT TATATTGTAC
```

Figure 6(ii)

REPLACEMENT SHEET

17 OCT 2003

2051 ACAGTGCTTT ATCTCCATTT TTTTCTGACA TTTTAGAACC TGATGTTGTT

start exon 3

2101 GTTAAACGAC AAGAAGCTTT AGCAGCTGCT CGACTGAAAA TGCAAGAAGA

2151 ACTAAATGCG CAAGTTGAAA AGCATAAGGA AAAACTGAAA CAAGTATGAA

end exon 3

2201 CTGGTTTCAG TTTGAATGTG TGCATAGAAA TTGTCTGAGG TTTAGTGGCT

2251 AACGATGCCT GTGTCTGTGT TGTCTATAAG CTTCTAGGAC CAGGTCCTAT

2301 CCCATTAGAT TCAATAAGCA TTTCAGTTCC TACCATGTAA GTATTGGTGA

2351 TATCAAGAAG AATACACGAT TGTTAGGGAA CACTAGATGT GTGAATATAT

2401 TACCATGAAA GGTCCAGAGC ACAAAAGGAG GGACAGGCTG GAGCAGGGAG

2451 CATGTGAGTG TGTGTGTGCA TGTGCCTGTG TCTTCCCCAT TACCAAAAAT

2501 GTCCTGACAG GAGTGAGTTT CAGAAGAATG GAGTCAGTAA TCTTTTTCAT

2551 GAAACATTTT GCTTTCTTTA ATAGTGTACA AAAACCAAAG CTGCTCTATG

2601 TGAGTTAAAC TCACACTACC AGATCACAAC AGTTTTATTA ACTAAAGAAA

2651 ACGAGGGTGA AGTTTGTTCT GAAAGACATT TAAATTAAGA ATTATCAGAG

2701 TTAGCTTTGT CTTTGAGAGA AATGGCAGCT TCTGAATTCT TTCTGTAAAA

2751 TGTGATTGTT TCTCAGCTTG AAGAAGAAAA AAGGAGACAG AAGATTGAAA

start exon 4

2801 TGTGGGACAG CATGCAAGAA GGAAAAAGTT ACAAAGGAAA TGCAAAGAAG

2851 CCCCAGGTGA CTGGAGACCT CGGCCGGCTG GCATGCGGTA GATGAAGATT

end exon 4

2901 GCCAAGTAGA ATGTTTTAAT TGCTTCTTAC ACTACTGTGT GTGTTCAAAC

REPLACEMENT SHEET
17 OCT 2003

2951 AGGAGGAAGA CAGTCCTGGG CCTTCCACTT CATCTGTCCT GAAACGGAAA

start exon 5

3001 TCGGACAGAA AGCCTTTGCG GGGAGGAGGT AAGCACCACT GATGTCAAAT

end exon 5

3051 GTTAACAGAT TTTCAACACT TACAGGATAT AGTTACCTTT TAAGAACAAG

3101 ATTGTTTGTT TCTTTGTCCA TAAATTAAGA CTAATTCCTT AGGATTGTGA

3151 AGATTCAATA AAGGAAACAG ATGCAAATCA CCTCCTAGGT CCTCACTAAG

3201 TACTTAGAAG GATTGTACTT ATAGTATTCT AACTTGATCC TTCTGCAGCC

3251 CCGTAGAGGG AGAGCTAAGT AGGGTGAGGA ATTGTCTGCC AATCTTCAGA

3301 TGAGTGTCAA GGAGCTGGAA CACAGTGGTT TTGGTCTTTC TGGCTGGGAC

3351 CACCTTGTTT CTTGCAAATA ACAAGGAGTA GCAGACAGAT GCTCATCCAA

3401 AGCTGCTTCC TGTGTGCAGC ACTGCCCCGG GGACTCTGGA TGATGCCACA

3451 GCAGTCTGTC TTCATCCCAT CCCTGAGAAT TTCAAATCTG GGAAGATGGG

3501 ACTCACAAAC GAAAATAAGC AATCCTTGGT GATTCTGGCT AAGAGTTGCA

3551 AGTTACTGCT GAGGAAGGAA AGAACAAACA CACTAGAACA CTGTAGGAAC

3601 CAAGGCGGAA GATTTTGTAT CCTCCATAGG AGGAGAGGGG CACCGCAGAG

3651 GCCCTGATGG TGTCTTTGAG GACTGAGGAA AGACTGGGGC ATGGGCTCCA

3701 AGGCAGCAGG GCCACAGACT TGGCTGACCT TAAACGCTGA GCTGTAATCC

3751 CCTTTGTGTC AGAAGACTAA ACCTGGCTTG CTGTAGAGAA GGTGATGCAT

3801 CTGGAAAGAA AATGCTATTT TTAAATGGTC CTGCCGGAAG CTTATTTTTA

3851 GACACATAGA GGTGATATTT AGGAGAGGAA TGGAAATCGT AGAAGATGGA

3901 ATGCAGGGTG TGCTTGCCTG CACGGCCTCT TTCAGCATCC CCAGCATTTC

3951 TGAGCTGGGA CTTTTGACTA GCCTGGCTTT ACAAATAAGG AAACTGAGGC

Figure 6(iv)

4001 ACAGTGTTTA ATTGCCCAAA GATTCCACTA TAAGTAAGGA GTAAAAGTAA

4051 CATTTAAGTT CTGGGTGGCC CTAGAACCTT AGCACTCAAC CAGGTTACCA

4101 GTTGTGCACT GACTTTGGGA AGCTCATGAG GGAGTGGGGT GGTTGGGGGT

4151 AGGGAAGGAT ACAGAAGACC CCGTTCTGAC TGGTAGAAGT GACAAGTTTG

4201 ACTCTTGATT TTTTTTAATC TGTTTTCTGT AGCGTGAACA GCCCTTATTT

4251 GAATGTATGA GTTTTAGTAA GCACTGTGAT AGGAGGATTC ATATACTTAA

4301 ATCAGGCCCT CTTGAGAGAG TTTTTTGGTG ACCCTTTTGC ATGTGTTTCG

4351 GAGGTTGGGA CAAAGAAGCT GAATGACTTT TTTCCCCACC AGACAATCAG

4401 TTCAAATGGC AATCACAATA TAAAGGTTTT TTTTTTTTTC ACATAGCTAA

4451 AAGGTTTTTT TAAATGTCCC TTAGGATCTG TATCTTTGCA GTGCTTTGCG

4501 TGTCACTCTC ATAATTTTAT TGTGGATATA CAATGTTCCC AGATTTTCAG

4551 ATTTTTATCA ATACTGTTGT GCTGCTTTTC TGTCCTCCCA GGTTATAACC

start exon 6

4601 CGTTGTCTGG TGAAGGAGGC GGAGCTTGCT CCTGGAGACC TGGACGCAGA

4651 GGCCCGTCAT CTGGCGGATG AGGCTAAGAA TCTTGTTAGT GTCACTTTTG

translation stop codon

4701 ACATTAGCAA GATGAACCCT TAACCCTCGA TTCAATTGCC TTACGCACGC

4751 TTTTCACAGT GACTAGCCAA GGGGAGGTGG GGTTGATTTC TGTTCCTAAC

4801 TACACCTGCA TATGTCAGGG CTCCAGTCAG CAAAAGGTAT AGATGTTGCC

4851 TCTAGGCATG AGGTCATTGG TCACATTCTA CTTGGAGACA GTGATTGCAT

4901 TCATTGATTT CATGGTTAAT TGCTAGTTGG TAGGTAAAGG CCTCTAGATG

4951 ATTAGCAATC TTGATAAAAG AGGCCTAGTA ATGTTCTTTT GAGGTTAGAA

5001 ATCCTTGCTG CTAGGACAGT CTCTGTGACA GGTTGCGTTG AATGATGTCT

Figure 6(v)

REPLACEMENT SHEET
17 OCT 2009

5051 TCCTTATCAA TGGTGAGCCC ACCAGTGAGG ATTACTGATG TGGACAGTTG

5101 ATGGGGTTTG TTTCTGTATA TTTATTTTTA TGTACAGAAC TTTGTAAAAA

5151 CGAAACTATT TAAAAAACAA GAATAACATT TTTAGCATCT TTATTCAAGG

5201 AGATTTATGG ACTTCAATTT GTCTATCAAA CATTAAATAG CTTTTTATTA

5251 C

↑

transcription termination site

end exon 6

Figure 6(vi)