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FIGURE 1

```
1      cggatgtcag aggtcctgaa atagtaccca tgggggaaaa tgatccgcct gctgttgaag
61     ccccttcttc attccgatcg ctttttggcc ttgatgattt gaaaataagt cctgttgcac
121    cagatgcaga tgctgttgct gcacagatcc tgtcactgct gccattgaag ttttttccaa
181    tcatcgtcac tgggatcatt gcattgatat tagcactggc cattgggtctg ggcatccact
241    tcgactgctc aggggaagtac agatgtcgct catcctttaa gtgtatcgag ctgatagctc
301    gatgtgacgg agtctcggat tgcaaagacg gggaggacga gtaccgctgt gtccgggtgg
361    gtggtcagaa tgccgtgctc caggtgttca cagctgcttc gtggaagacc atgtgctccg
421    atgactggaa gggtcactac gcaaatgttg cctgtgcca actgggtttc ccaagctatg
481    taagttcaga taacctcaga gtgagctcgc tggaggggca gttccgggag gagtttgtgt
541    ccatcgatca cctcttgcca gatgacaagg tgactgcatt acaccactca gtatatgtga
601    gggaggggatg tgcctctggc cactgtggtta ccttgcaagt cacagcctgt ggcatagaa
661    ggggctacag ctacgcacgc gtgggtggaa acatgtcctt gctctcgag tggccctggc
721    aggccagcct tcagttccag ggctaccacc tgtgcggggg ctctgtcatc acgcccctgt
781    ggatcatcac tgctgcacac tgtgtttatg acttgtacct cccaagtca tggaccatcc
841    aggtgggtct agtttcctg ttggacaatc cagcccatc ccacttggtg gagaagattg
901    tctaccacag caagtacaag ccaaagaggc tgggcaatga catcgccctt atgaagctgg
961    ccgggccact cacgttcaat gaaatgatcc agcctgtgtg cctgcccaac tctgaagaga
1021   acttccccga tggaaaagtg tgctggacgt caggatgggg ggccacagag gatggagcag
1081   gtgacgcctc ccctgtcctg aaccacgcgg ccgtcccttt gatttccaac aagatctgca
1141   accacaggga cgtgtacggt ggcacatctt cccctccat gctctgcgcg ggctacctga
1201   cgggtggcgt ggacagctgc cagggggaca gcggggggcc cctggtgtgt caagagagga
1261   ggctgtggaa gttagtggga ggcaccagct ttggcatcgg ctgcgcagag gtgaacaagc
1321   ctgggggtga caccctgtgc acctccttcc tggactggat ccacgagcag atggagagag
1381   acctaaaaac ctgaaaagga aggggacaag tagccacct (SEQ ID NO:1)
```

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FIGURE 2

MGENDPPAVEAPFSFRSLFGLDDLKISPVAPDADAVAAQILSLLPLKFFPIIVIGIIALILALAIGLGIHFD
CSGKYRCRSSFKCIELIARCDGVSDCKDGEDEYRCVRVGGQNAVLQVETAASWKTMCSDDWKGYANVACAQ
LGFPSYVSSDNLRVSSLEGQFREEFVSIDHLLPDDKVTALHHSVYVREGCASGHVVTLQCTACGHRRGYSSR
IVGGNMSLLSQWPWQASLQFQGYHLCGGSVITPLWIITAHCVDLYLPKSWTIQVGLVSLLDNPAPSHLVE
KIVYHSKYKPKRLGNDIALMKLAGPLTFNEMIQPVCLPNSEENFPDGKVCWTSGWGATEDGAGDASPVLNHA
AVPLISNKICNHRDVYGGIISPSMLCAGYLTGGVDSCQGDSSGGLVCQERRLWKLVGATSFGIGCAEVNKP
GYTRVTSFLDWIHEQMERDLKT (SEQ ID NO:2)

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FIGURE 3

```
1      gtagaaccga ggtgggggct tggatgaaggc acaccaggaa gagcaggctg cgcctcacc
61     tccagtggag acagagggca gacattctct ttggagcaca cctcaggcta aatggcaaaa
121    cccaatctc aagtgaactt catggaacta ggggattgtc tcacttctcc agtggattga
181    ggcagtgtc cctctgttct ctatgaaatg acggtgtgga caggggatgt ggttggcggg
241    ggcactgact ccaacatctt catgaccctc tacggcatca acgggagcac agaggagatg
301    cagctggaca aaaagaaagc caggtttgag cgggagcaga acgacacctt catcatggag
361    atcctagaca ttgctccatt caccaagatg cggatccgga ttgatggcct gggcagtcgg
421    ccggagtggg tcctggagag gatcctactg aagaacatga aactggaga cctgaccatg
481    ttctactatg gagactggct gtcccagcgg aagggaaga agaccctggt gtgtgaaatg
541    tgtgccgtta tcgatgagga agaaatgatg gattggacct cctacaccgt cgcagttaag
601    accagcgaca tcctgggagc aggcactgat gccaacgtgt tcatcatcat ctccggggag
661    aacggggata gtgggacact ggccctgaag cagtcggcaa actggaacaa gtttgagcgg
721    aacaacacgg acacattcaa ctccctgac atgctgagct tgggccacct ctgcaagctg
781    aggggtctggc acgacaacaa agggatattt cctggctggc atctgagcta tgtcgatgtg
841    aaggacaact ccgcgacga gacctccac ttccagtgtg actgctggct ctccaagagt
901    gaggggtgacg ggcagacggt ccgcgacttt gcctgtgcca acaacaagat ctgtgatgag
961    ctggaagaga ccacctacga gatcgtcata gaaacgggca acggaggcga aaccaggggag
1021   aacgtctggc tcctcctgga gggcaggaag aaccgatcca aagagtttct catggaaaat
1081   tcttctaggg agcgggcctt taggaagggg accacagaca cgtttgagtt tgacagcatc
1141   tacttggggg acattgcctc cctctgtgtg ggccaccttg ccagggaaga ccggtttatc
1201   cccaagagag aacttgctg gcatgtcaag accatcacca tcaccgagat ggagtacggc
1261   aatgtgtacc tctttaactg tgactgcctc atccccctca agaggaagag gaagtacttc
1321   aagggtattcg aggttaccaa gacgacagag agctttgcca gcaagggtcca gagcctgggtg
1381   ccggtcaagt acgaagtcac cgtgacaaca ggctatgagc caggggcagg cactgatgcc
1441   aacgtcttcg tgaccatctt tggggccaac ggagacacag gcaagcggga gctgaagcag
1501   aaaatgcgca acctcttcga gcggggcagc acagaccgct tcttcctgga gacgctggag
1561   ctgggtgagc tgcgcaagta gtgaccaggc tgggacttgc tgcagagtgt ggatgagaaa
1621   ttgagtcttc acccagggga tagaagtgga gaagcagagg ccatcaagat ggtgtatttt
1681   aagcaaaaac taattaacac ttttcccca aaaagctagg ctaattaaat tattaccaac
1741   catatcctat aaagaactca tcttagcatc tgcttgctaa gaagtgtata cttttcccca
1801   gtttcaataa acccagtggc aagtgg (SEQ ID NO:3)
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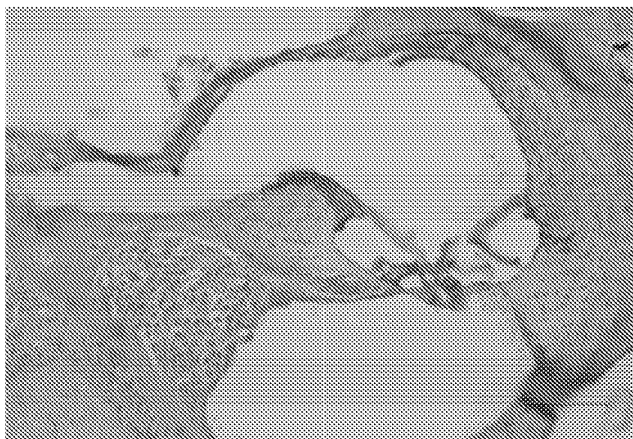
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FIGURE 4

MNNEITYYFPCQRWLAVEEDDGQLSRELLPVDES YVLPQSEEGRGGDNNPLDNLALEQK
DKSTTF SVTIKTGVKKNAGTDANVFITLFGTQDDTGMTLLKSSKTNSDKFERDSIEIFTV
ETLDDLGLDWKVR LGHDNTGKAPGW FVDV EVDAPSLGKCMTFPCGRWLAKNEDDGSIIRD
LFHAELQTRLYTFVPYIEITLYTSDVFAAGTDANIFIIYGCDAVCTQQKYLCTNKREQK
QFFERKSASRFIVELEDVGEIEKIRIGHNNTGMNPGWHCSHVDIRLLLPDKDGAETLTF
PCDRWLATSEDDKKTIRELVPYDIFTEKYMKGDSL RQVYKEVEEPLDIVLYSVQIFTGNI
PGAGTDAKVYITTYGDLGDTGERYL GKSENRTNKKFERGTADTFIEAADLGVIYKIKLRH
DNSKWCADWYVEKVEIWNDTNEDEFLFCGRWLSLKKEDGRLERLFYEKEYTGDRSSNCS
SPADFW EIALSSKMADVDISTVTGPMADYVQEGPIIPYYVSVTTGKHKDAATDSRAFI FL
IGEDDERSKRIWLDYPRGKRGF SRGSVEEFYVAGLDVGIKKIELGHDGASPESCWLVEE
LCLAVPTQGTKYMLNCNCWLAKDRGDGITSRVFDLLDAMV VNI GVKVLYEMTVWTDVVG
GGTDSNIFMTLYGINGSTEEMQLDKKKARFEREQNDTFIMEILDIA PFTKMRI RIDGLGS
RPEWFLERILLKNMNTGDLTMFYGDWLSQRKGKKTLC E MCAVIDEEEMMEWTSYTVAV
KTS DILGAGTDANVFIIIFGENGDSGTLALKQSANWNKFERNNTDTNF PDMLS LGHLCK
LRVWHDNKGIFPGWHL SYVDVKD NSRDET FHFQ CDCWLSKSEGDGQTVRDFACANNKICD
ELEETTYEIV IETGNGGETRENVWLILEGRKNRSKEFLMENS SRQRAFRKGTDTTFFEDS
IYLGDIASLCVGH LARED RFI PKRELAWHVKTITIT EMEYGNVYFFNCDC LIPLKRKRKY
FKVFEVTKTTESFASKVQSLVPVKYEVIVTTGYEPGAGTDANVFVTIFGANGDTGKRELK
QKMRNLFERGSTDRFFLETLELVVTRLGLAAECG (SEQ ID NO:4)

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FIGURE 5



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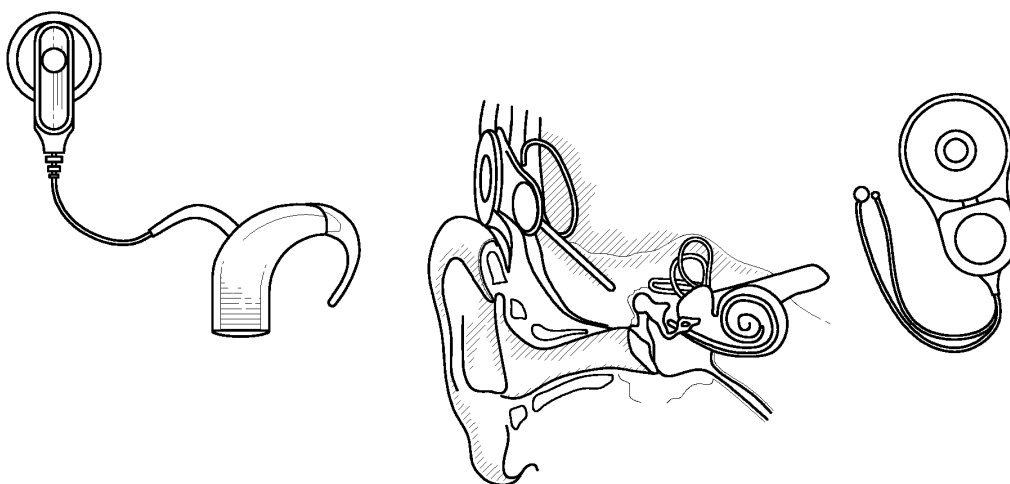


Figure 6

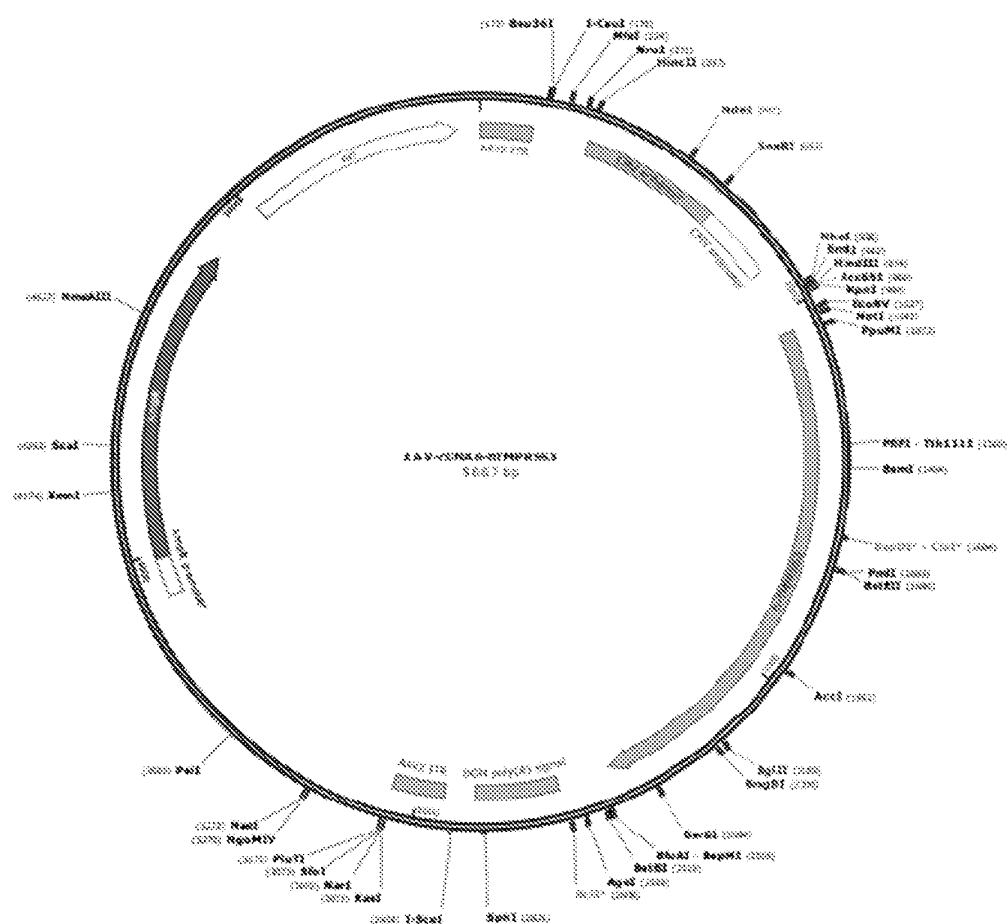
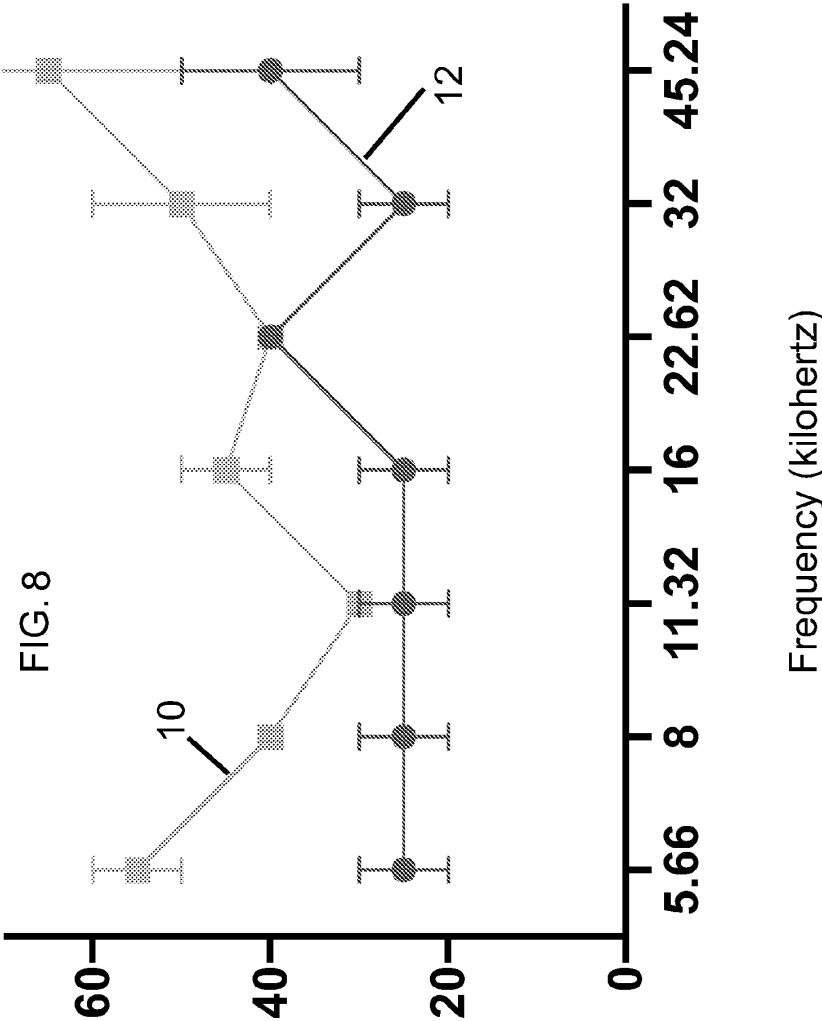


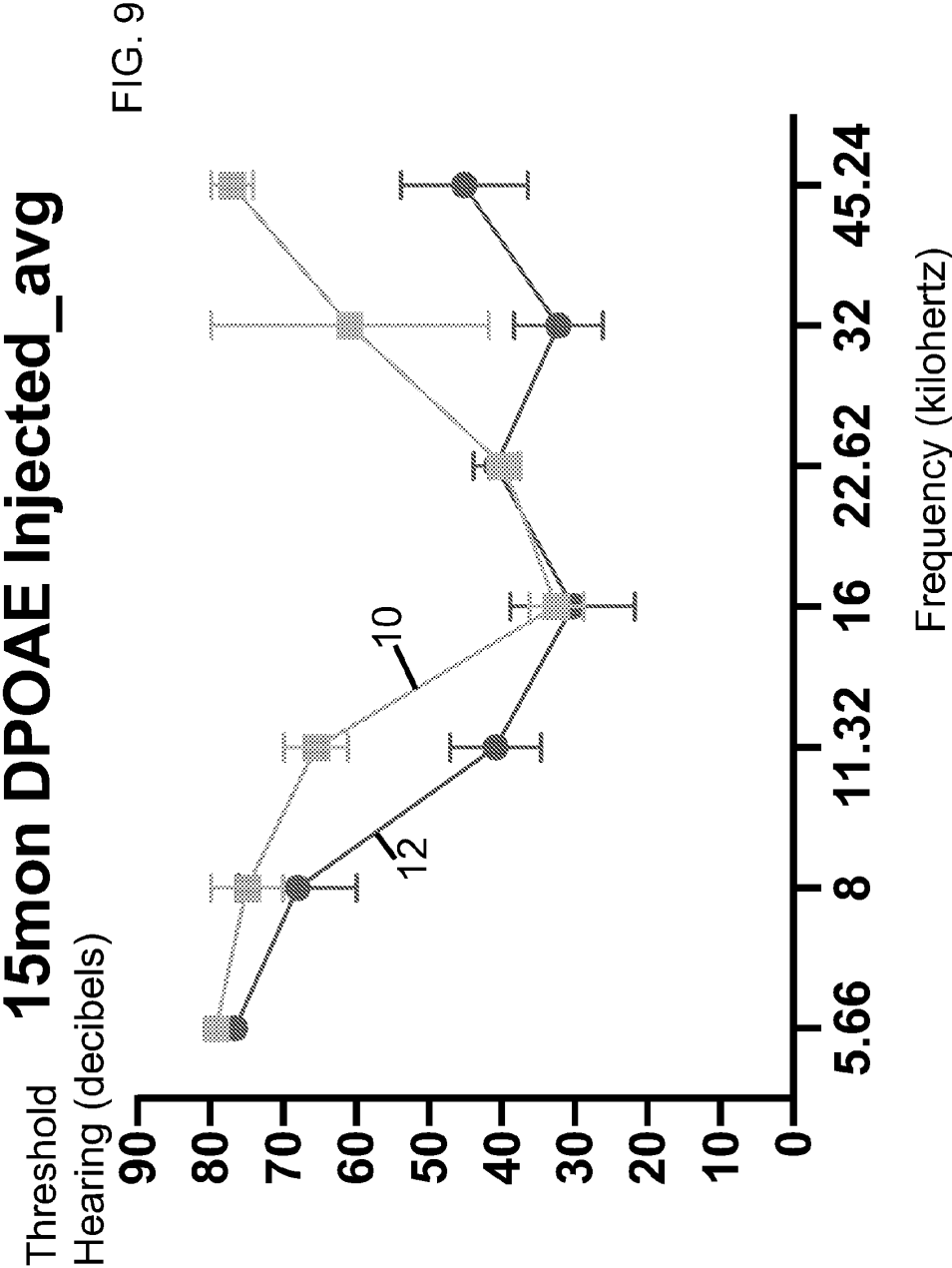
Figure 7

15mon ABR injected_avg

Threshold
Hearing (decibels)

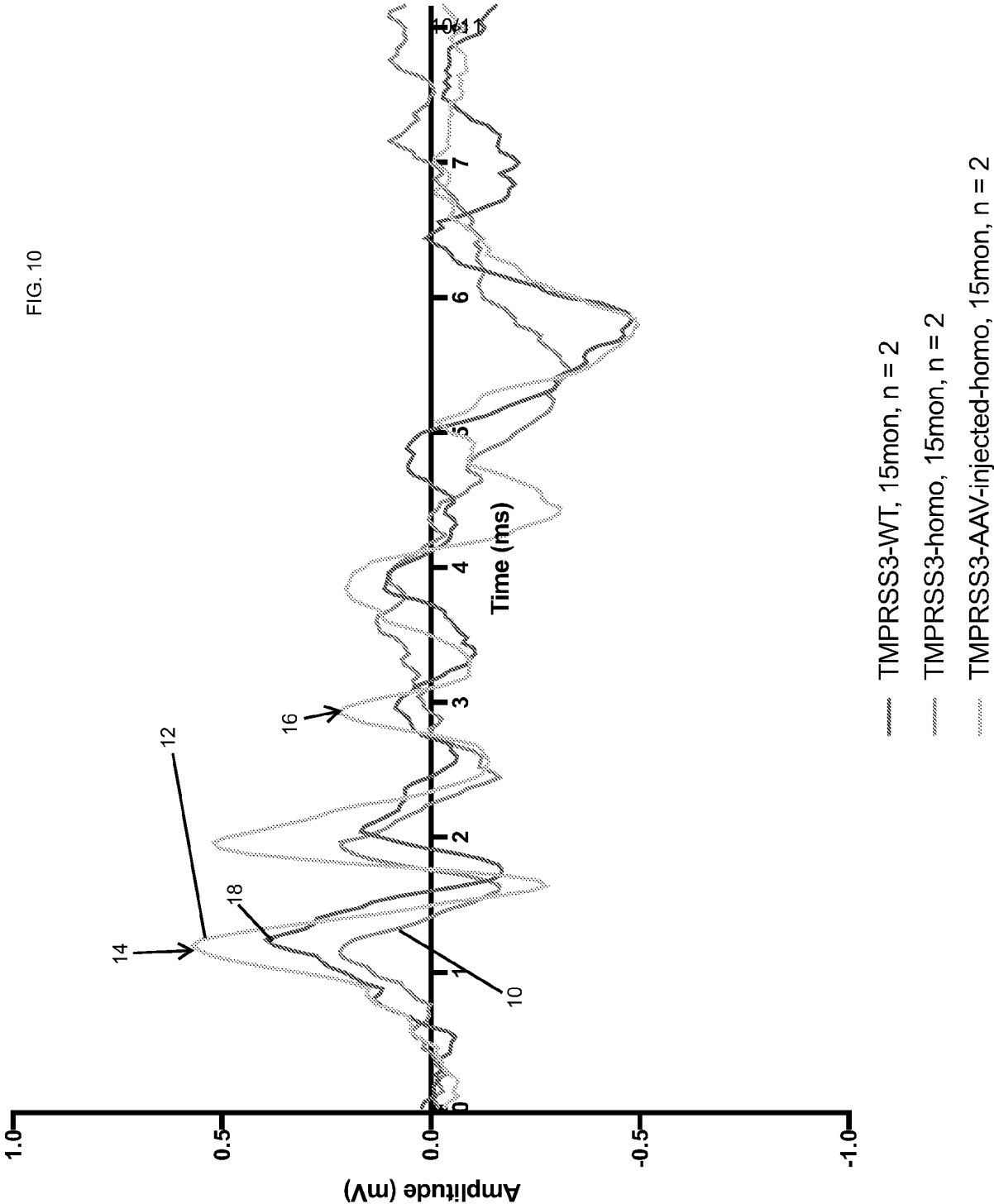


- TMPRSS3-AAV-injected-homo, 15mon, n = 2
- TMPRSS3-homo, 15mon, n = 2

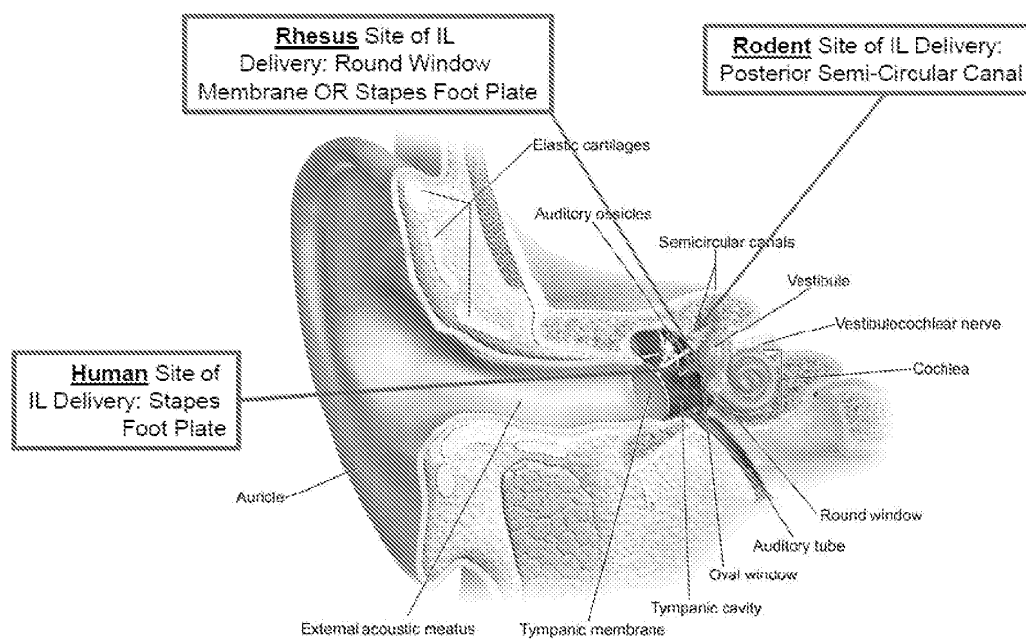


- TMPRSS3-AAV-injected_homo, 15mon, n = 2
- TMPRSS3-homo, 15mon, n = 2

SPL = 80 dB at 32 kHz



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**Figure 11**