

Characterization of the Glycosyltransferase DesVII and Its Auxiliary Partner Protein DesVIII in the Methymycin/Pikromycin Biosynthetic Pathway

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Corrected *desVII* sequence and its translation: (the sequence discussed in text is shown in bold)

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M R V L L T S F A H H T H Y Y G L ·
1  ATGCG CGTCC TGCTG ACCTC GTTCG CACAT CACAC GCACT ACTAC GGCCT

· V P L A W A L L A A G H E V R V A ·
51  GGTGC CCCTG GCCTG GGC GC TGCTC GCCGC CGGGC ACGAG GTGCG GGTGC

· S Q P A L T D T I T G S G L A A
101  CCAGC CAGCC CGCGC TCACG GACAC CATCA CCGGG TCCGG GCTCG CCGCG

V P V G T D H L I H E Y R V R M A ·
151  GTGCC GGTGC GCACC GACCA CCTCA TCCAC GAGTA CCGGG TCGCG ATGGC

· G E P R P N H P A I A F D E A R P ·
201  GGGCG AGCCG CGCCC GAACC ATCCG GCGAT CGCCT TCGAC GAGGC CCGTC

· E P L D W D H A L G I E A I L A
251  CCGAG CCGCT GGACT GGGAC CACGC CCTCG GCATC GAGGC GATCC TCGCC

P Y F Y L L A N N D S M V D D L V ·
301  CCGTA CTTCT ATCTG CTCGC CAACA ACGAC TCGAT GGTGC ACGAC CTCGT

· D F A R S W Q P D L V L W E P T T ·
351  CGACT TCGCC CGGTC CTGGC AGCCG GACCT GGTGC TGTGG GAGCC GACGA

· Y A G A V A A Q V T G A A H A R
401  CCTAC GCGGG CGCCG TCGCC GCCCA GGTCA CCGGT GCCGC GCACG CCCGG

V L W G P D V M G S A R R K F V A ·
451  GTCCT GTGGG GGCCG GACGT GATGG GCAGC GCCCG CCGCA AGTTC GTCGC

· L R D R Q P P E H R E D P T A E W ·
501  GCTGC GGGAC CGGCA GCCGC CCGAG CACCG CGAGG ACCCC ACCGC GGAGT

· L T W T L D R Y G A S F E E E L
551  GGCTG ACGTG GACGC TCGAC CGGTA CGGCG CCTCC TTCGA AGAGG AGCTG
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L T G Q F T I D P T P P S L R L D ·
 601 CTCAC CGGCC AGTTC ACGAT CGACC CGACC CCGCC GAGCC TGC GC CTCGA

· T G L P T V G M R Y V P Y N G T S ·
 651 CACGG GCCTG CCGAC CGTCG GGATG CGTTA TGTTC CGTAC AACGG CACGT

· V V P D W L S E P P A R P R V C
 701 CGGTC GTGCC GGACT GGCTG AGTGA GCCGC CCGCG CGGCC CCGGG TCTGC

L T L G V S A R E V L G G D G V S ·
 751 CTGAC CCTCG GCGTC TCCGC GCGTG AGGTC CTCGG CGGCG ACGGC GTCTC

· Q G D I L E A L A D L D I E L V A ·
 801 GCAGG GCGAC ATCCT GGAGG CGCTC GCCGA CCTCG ACATC GAGCT CGTCG

· T L D A S Q R A E I R N Y P K H
 851 CCACG CTCGA CGCGA GTCAG CGCGC CGAGA TCCGC AACTA CCCGA AGCAC

T R F T D F V P M H A L L P S C S ·
 901 ACCCG GTTCA CGGAC TTCGT GCCGA TGCAC GCGCT CCTGC CGAGC TGCTC

· A I I H H G G A G T Y A T A V I N ·
 951 GCGCA TCATC CACCA CGGCG GGGCG GGCAC CTACG CGACC GCCGT GATCA

· A V P Q V M L A E L W D A P V K
 1001 ACGCG GTGCC GCAGG TCATG CTCGC CGAGC TGTGG GACGC GCCGG TCAAG

A R A V A E Q G A G F F L P P A E ·
 1051 GCGCG GGCCG TCGCC GAGCA GGGGG CGGGG TTCTT CCTGC CGCCG GCCGA

· L T P Q A V R D A V V R I L D D P ·
 1101 GCTCA CGCCG CAGGC CGTGC GGGAC GCCGT CGTCC GCATC CTCGA CGACC

· S V A T A A H R L R E E T F G D
 1151 CCTCG GTCGC CACCG CCGCG CACCG GCTGC GCGAG GAGAC CTTCG GCGAC

P T P A G I V P E L E R L A A Q H ·
 1201 CCCAC CCCGG CCGGG ATCGT CCCCAGCTG GAGCG GCTCG CCGCG CAGCA

· R R P P A D A R H *
 1251 CCGCC GCCCG CCGGC CGACG CCCGG CACTG A