

Supplementary data for article:

Molloy, S.; Nikodinović-Runić, J.; Martin, L. B.; Hartmann, H.; Solano, F.; Decker, H.; O'Connor, K. E. Engineering of a Bacterial Tyrosinase for Improved Catalytic Efficiency towards D-Tyrosine Using Random and Site Directed Mutagenesis Approaches.

Biotechnology and Bioengineering **2013**, *110* (7), 1849–1857.

<https://doi.org/10.1002/bit.24859>

WT MVVRRTVLKA IAGTSVATVFAGKLTGLSAVAADAAPLRVRRNLHGMMKDDPDL SAYREFV 60
RVC10 MVVRRTVLKA IAGTSVATVFAGKLTGLSAVAADAAPLRVRRNLHGMMKDDPDL SAYREFV 60
RV145 MVVRRTVLKA IAGTSVATVFAGKLTGLSAVAADAAPLRVRRNLHGMMKDDPDL SAYREFV 60

WT GIMK GK DQTQ ALSW LGFAN QHG T LN GGY KY CPH G DWY FLP W H R G F V L M Y E R A V A A L T G Y K 120
RVC10 GIMK GK DQTQ ALSW LGFAN QHG T LN GGY KY CPH G DWY FLP W H R G F V L M Y E R A V A A L T G Y K 120
RV145 GIMK GK DQTQ ALSW LGFAN QHG T LN GGY KY CPH G DWY FLP W H R G F V L M Y E R A V A A L T G F K 120

WT TFAMPYWNWTE DRLLPEAFTAKTYNGKTNPLYV PNRNELTGPYALTD AIVGQKEVMDKIY 180
RVC10 TFAMPYWNWTE DRLLPEAFTAKTYNGKTNPLYV PNRNELTGPYALTD AIVGQKEVMDKIY 180
RV145 TFAMPYWNWTE DRLLPEAFTAKTYNGKTNPLYV PNRNELTGPYALTD AIVGQKEVMDKIY 180

WT AETNFEVFGTSRSVDRSVRPPLVQNSLDPKWVPMGGGNQGI LERTPHNTVHNNIGAFMPT 240
RVC10 AEINYE VFGTSRSVDRSVRPPLVQNSLDPKWVPMGGGNQGI LERTPHNTVHNNIGAFMPT 240
RV145 AETNFEVFGTSRSVDRSVRPPLVQNSLDPKWVPMGGGNQGI LERTPHNTVHNNIGAFMPT 240
** * : *****

WT AASPRDPVFMMHHGNIDRVWATWNALGRKNSTDPLWLGMKFPNNYIDPQGRYYTQGVSDI 300
RVC10 AASPRDPVFMMHHGNIDRVWATWNALGRKNSTDPLWLGMKFPNNYIDPQGRYYTQGVSDI 300
RV145 AASPRDPVFMMHHGNIDRVWATWNALGRKNSTDPLWLGMKFPNNYIDPQGRYYTQGVSDI 300

WT LSTEALGYRYDVMPRADNKVVNNARA EHL LALFKTGDSV K LADH IRLRSVLKGEHPVATA 360
RVC10 LSTEALGYRYDVMPRADNKVVSNARA EHL LALFKTGDSV K LADH IRLRSVLKGEHPVAMA 360
RV145 LSTEALGYRYDVMPRAYNKVVNNARA EHL LALFKTGDSV K LADH IRLRSVLKGEHPVATA 360

WT VEPLNSAVQFEAGTVTGALGADVGTGSTTEVVALIKNIRIPYNVISIRVFNLPNANLDV 420
RVC10 VEPLNSAVQFEAGTVTGALGADVGTGSTTEVVALIKNIRIPYNVISIRVFNLPNANLDV 420
RV145 VEPLNSAVQFEAGTVTGALGADVGTGSTTEVVALIKNIRIPYNVISIRVFNLPNANLDV 420

WT PETDPHFVTSLSFLTHAAGHDHHALPSTMVNLTDTLKALNIRDDNFSINLVAVPQPGVAV 480
RVC10 PETDPHFVTSLSFLTHAAGHDHHALPSTMVNLTDTLKALNIRDDNFSINLVAVPQPGVAV 480
RV145 PETDPHFVTSLSFLTHAAGHDHHALPSTMVNLTDTLKALNIRDDNFSINLVAVPQPGVAV 480

WT ESSGGVTPESIEVAVI- 496
RVC10 ESSGGVTPESIEVAVI- 496
RV145 ESSGGVTPESIEVAVI- 496

