Electronic Supplementary Material (ESI) for RSC Advances.

Biotransformation of benzo[a]pyrene by *Pannonibacter* sp. JPA3 and the degradation mechanism research through the initially oxidized benzo[a]pyrene-4,5-dihydrodiol to downstream metabolites

Jingnan Jin[a,*], Yahui Shi[a], Baozhong Zhang[a], Dongjin Wan[a], Qingye Zhang[b], Ying Li[a]

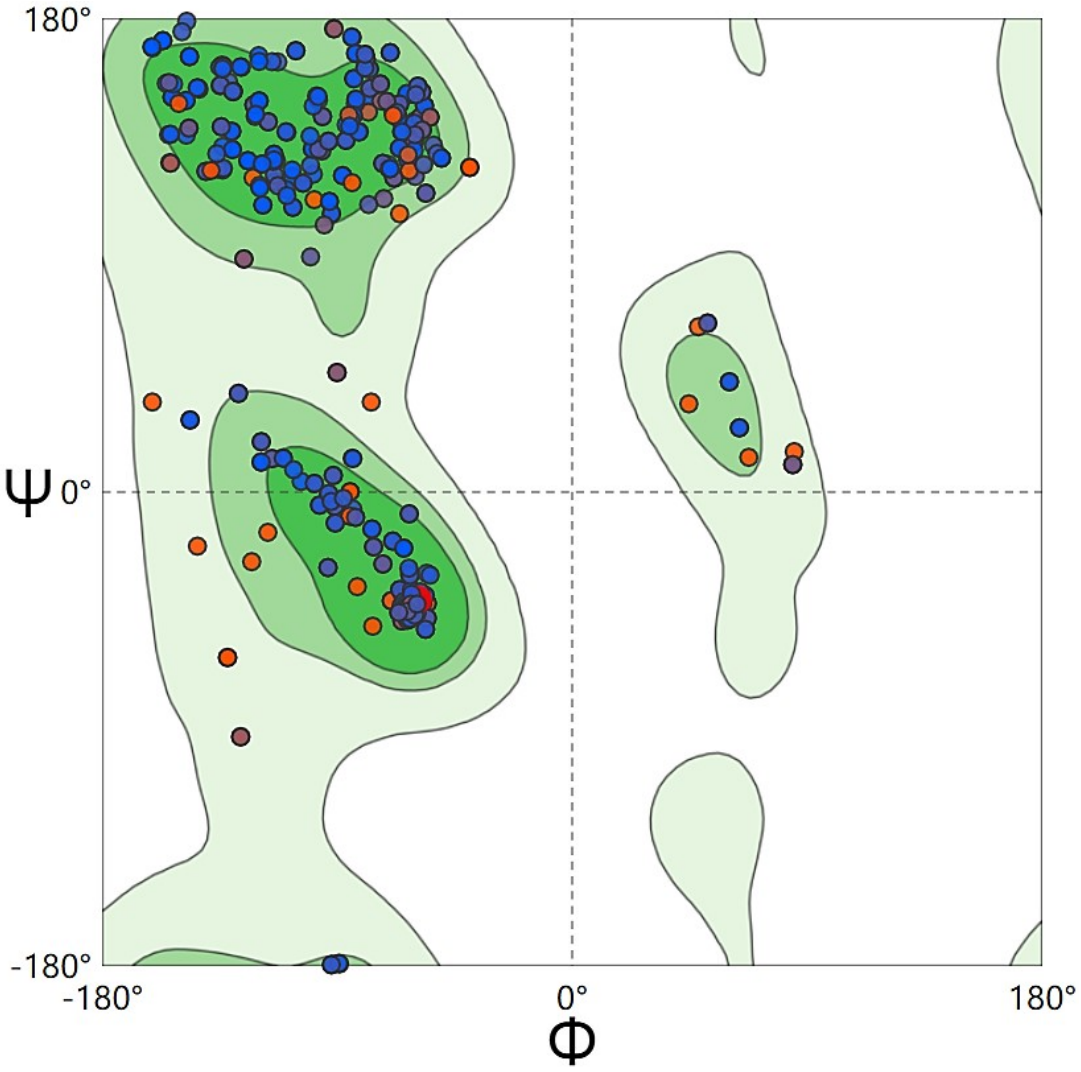

Fig. S1. The Ramachandran Plots of modeling structure of target enzyme in the strain.

Table S1

The constitution of the mineral salt medium.

Elements	Concentration
KH_2PO_4	0.50 g/L
$Na_2HPO_4 \cdot 12H_2O$	1.26 g/L
$(NH_4)_2SO_4$	3.00 g/L
$MgSO_4 \cdot 7H_2O$	0.54 g/L
$MnSO_4 \cdot H_2O$	0.15 mg/L
$FeCl_3 \cdot 6H_2O$	0.50 mg/L
$ZnSO_4 \cdot 7H_2O$	0.24 mg/L
$CoCl_2 \cdot 6H_2O$	3.66 mg/L
$FeSO_4 \cdot 7H_2O$	0.30 mg/L

Table S2

Amplification system of of 16S rDNA

Elements	Concentration
2×Taq MasterMix	12.50 μL
each primer	1.00 μL
genomic DNA	0.50 μL
ddH_2O	10.00 μL

Table S3

The amplification program of 16S rDNA.

Temperature		Time
94 °C		1 min
	94 °C	1 min
30 times	54 °C	1 min
	72 °C	1 min
72 °C		10 min

Table S4

Parameters of HP-5 chromatogram column.

Elements	Concentration
Carrier gas	40 cm s^{-1}
Column temperature	60 °C for 1 min 320 °C for 10 °C min^{-1}
Electron ionization energy	70 eV
Ion source temperature	230 °C

Table S5

Procedure of PCR amplification for dioxygenase gene.

Temperature		Time
95 °C		1 min
	95 °C	1 min
30 times	55 °C	1 min
	72 °C	1 min
72 °C		10 min