Supplemental material

The *para*-Nitrophenol Catabolic Gene Cluster is Responsible for 2-Chloro-4-nitrophenol Degradation in *Burkholderia* sp. Strain SJ98

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Table S1 Maximum specific growth rates (μ_m) of bacteria with different substrates

Carbon source[a]	Strains	$\mu_m(h^{-1})$[b]
PNP	SJ98	0.254
	SJ98Δ*pnpA1*	0.191
2C4NP	SJ98	0.237
	SJ98Δ*pnpA1*	0.166

[a] Bacteria, grown with 2 mM glucose as carbon source to an OD_{600} of 0.5, were induced by 0.3 mM of PNP or 2C4NP for 5 h, the cells were harvested, washed twice with MM prior to inoculation for growth on PNP or 2C4NP (1% inoculums from culture with OD_{600} of 0.5, *v/v*).

[b] μm was expressed with the average value (n=3).

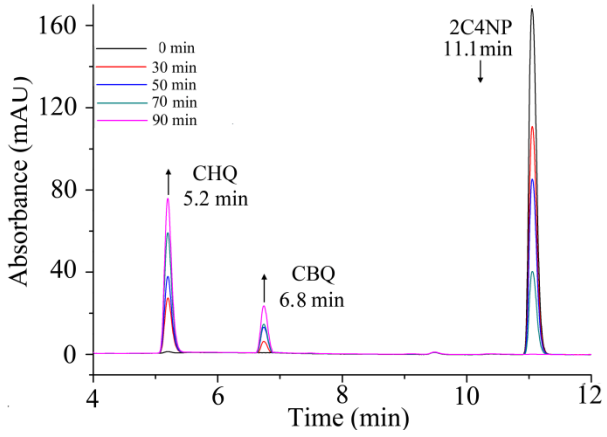
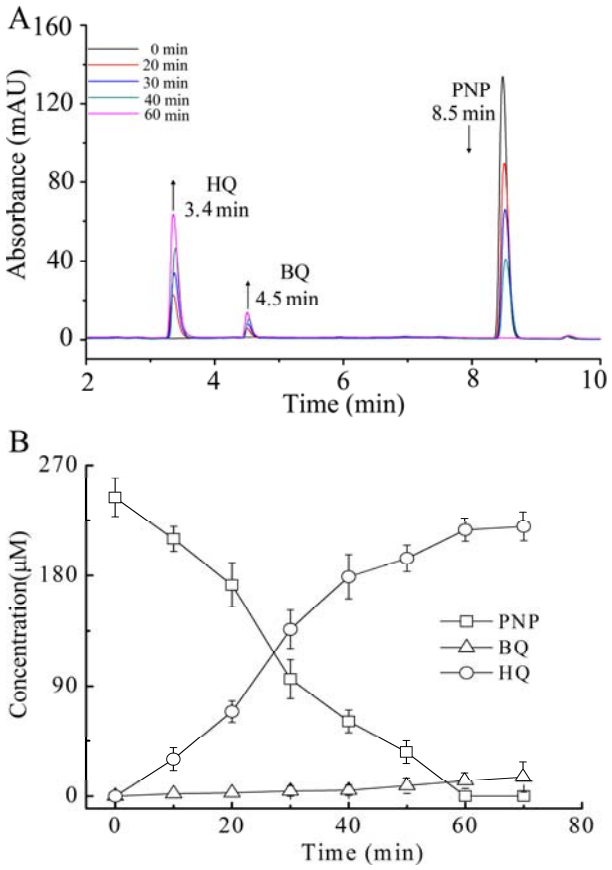


Fig. S1 HPLC analyses of the intermediates generated during 2C4NP degradation by strain SJ98 in whole cell biotransformation. The arrows indicate the trends of consumption or accumulation of the compounds.



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29 **Fig. S2** Qualitative (A) and quantitative (B) HPLC analyses of the intermediates generated

30 during degradation of PNP by PNP-induced strain SJ98 in biotransformation studies. The

31 arrows indicate the trends of the consumption or accumulation of the compounds. The

32 quantitative experiments were performed in triplicate; the results were the average of three

33 independent experiments, and the error bars show standard deviations.

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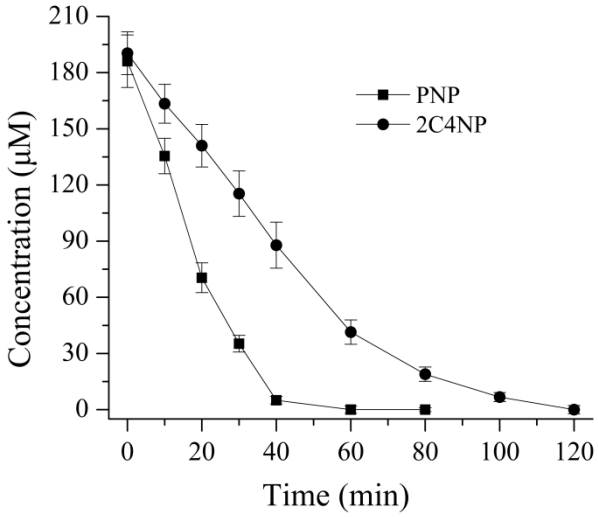

Fig. S3 Biotransformation of PNP and 2C4NP by PNP-induced *Pseudomonas* sp. strain WBC-3. The quantitative experiments were performed in triplicate; the results were the average of three independent experiments, and the error bars show standard deviations.

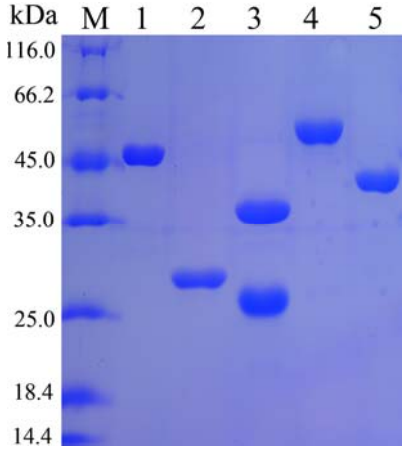

Fig. S4 SDS-PAGE of purified recombinant Pnp proteins. Lane M: molecular mass standards (sizes in kDa are shown on the left); lane 1: purified His_6-PnpA; lane 2: His_6-PnpB; lane 3: His_6-PnpCD; lane 4: His_6-PnpE and lane 5: His_6-PnpF.