

# Supplemental Data

for

**AROMATIC PRENYLATION IN PHENAZINE BIOSYNTHESIS:  
DIHYDROPHENAZINE-1-CARBOXYLATE DIMETHYLALLYL TRANSFERASE  
FROM *STREPTOMYCES ANULATUS***

**Orwah Saleh<sup>1</sup>, Bertolt Gust<sup>1</sup>, Björn Boll<sup>1</sup>, Hans-Peter Fiedler<sup>2</sup>, and Lutz Heide<sup>1</sup>**

<sup>1</sup>Pharmazeutische Biologie, Pharmazeutisches Institut, Eberhard-Karls-Universität Tübingen, Auf der Morgenstelle 8, 72076 Tübingen, Germany; <sup>2</sup>Mikrobiologisches Institut, Eberhard Karls-Universität Tübingen, Auf der Morgenstelle 28, 72076 Tübingen, Germany

**Corresponding author:** Lutz Heide, Pharmazeutische Biologie, Pharmazeutisches Institut, Eberhard-Karls-Universität Tübingen, Auf der Morgenstelle 8, 72076 Tübingen, Germany. Fax: +49 7071 295250, E-mail: [heide@uni-tuebingen.de](mailto:heide@uni-tuebingen.de)

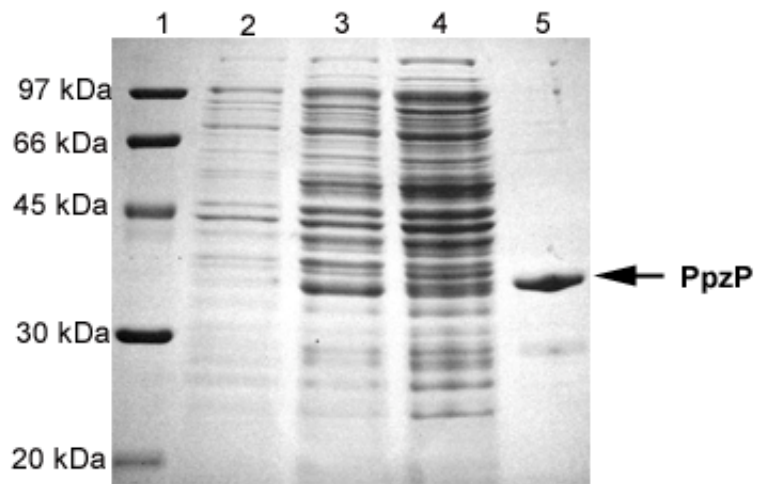


Fig. S1: Expression and purification of PpzP. Lane 1, molecular weight standards; lane 2, total protein before IPTG induction; lane 3, total protein after IPTG induction; lane 4, soluble protein after IPTG induction; lane 5, eluate from Ni-NTA-agarose. The 12% polyacrylamide gel was stained with Coomassie Brilliant Blue R-250.

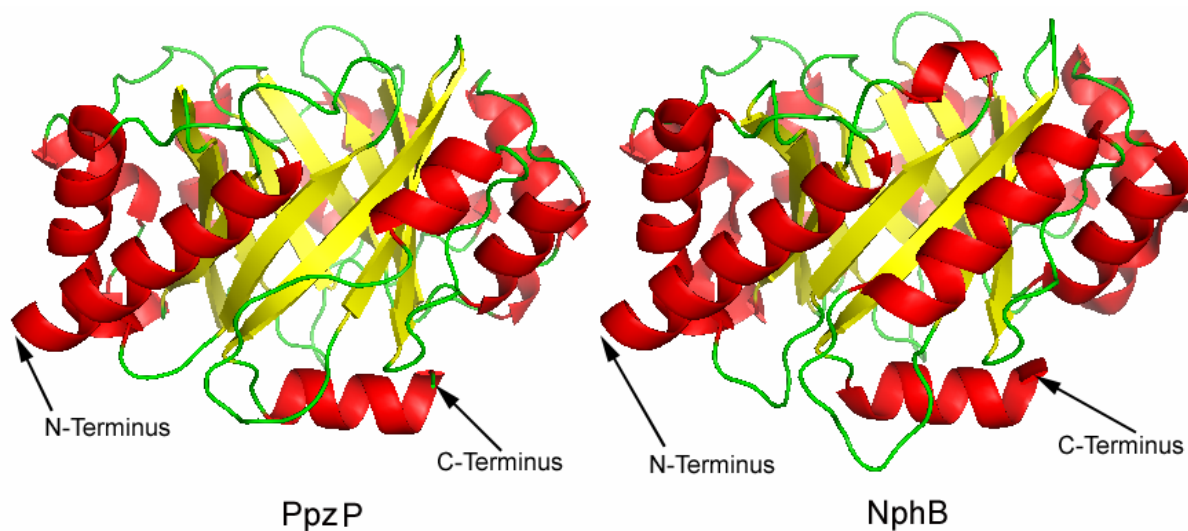


Fig.S2: Structural model of the dihydro-phenazine-1-carboxylate prenyltransferase PpzP, and experimentally determined structure of the prenyltransferase NphB. The unique fold of the ABBA prenyltransferases is characterized by a central barrel consisting of ten antiparallel  $\beta$ -sheets. The PpzP model was generated with the SWISS-MODEL program, using the PDB file 1zdyA as template.

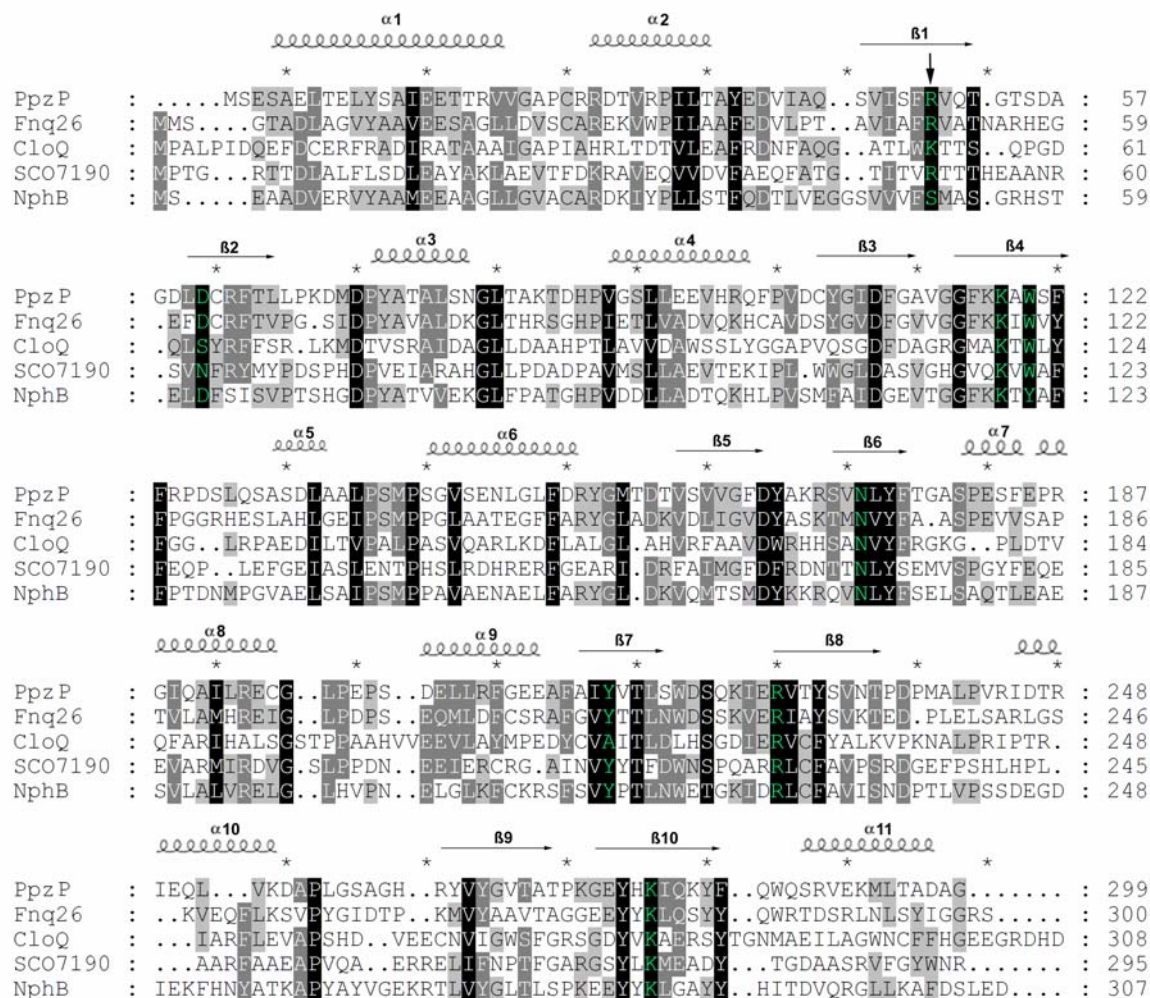


Fig. S3: Structure based multiple sequence alignment of the ABBA prenyltransferases PpzP, Fnq26, CloQ, SCO7190 and NphB. The structure of NphB and the structure models of CloQ and SCO7190 are described by Kuzuyama *et al.* 2005. The structure of PpzP and Fnq26 were generated with the SWISS-MODEL program using the PDP file 1zyA (NphB) as template. Arg49, suggested to coordinate the pyrophosphate group of the isoprenoid substrate, is indicated by an arrow.