Supporting Information for

Mechanistic Studies on CymD: A Tryptophan Reverse *N*-Prenyltransferase

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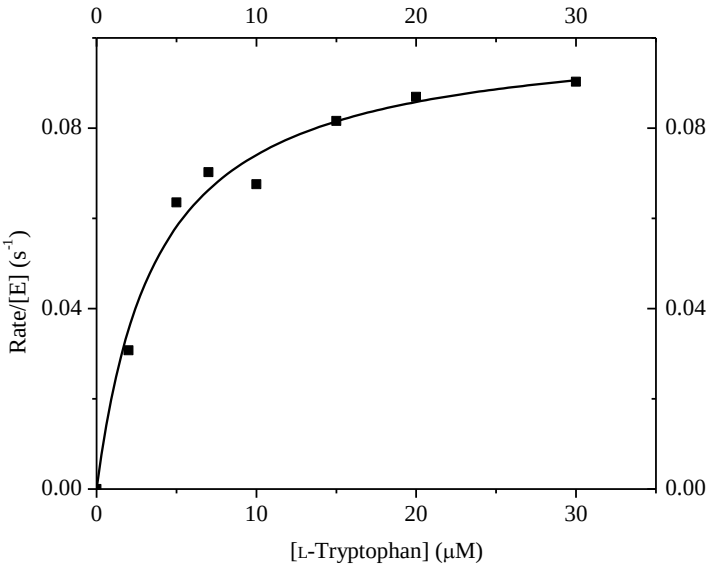

Figure S1. Enzyme kinetics plot of rate/[E] versus [S] for the prenyltransferase CymD with L-tryptophan (variable) and 20 μM DMAPP.

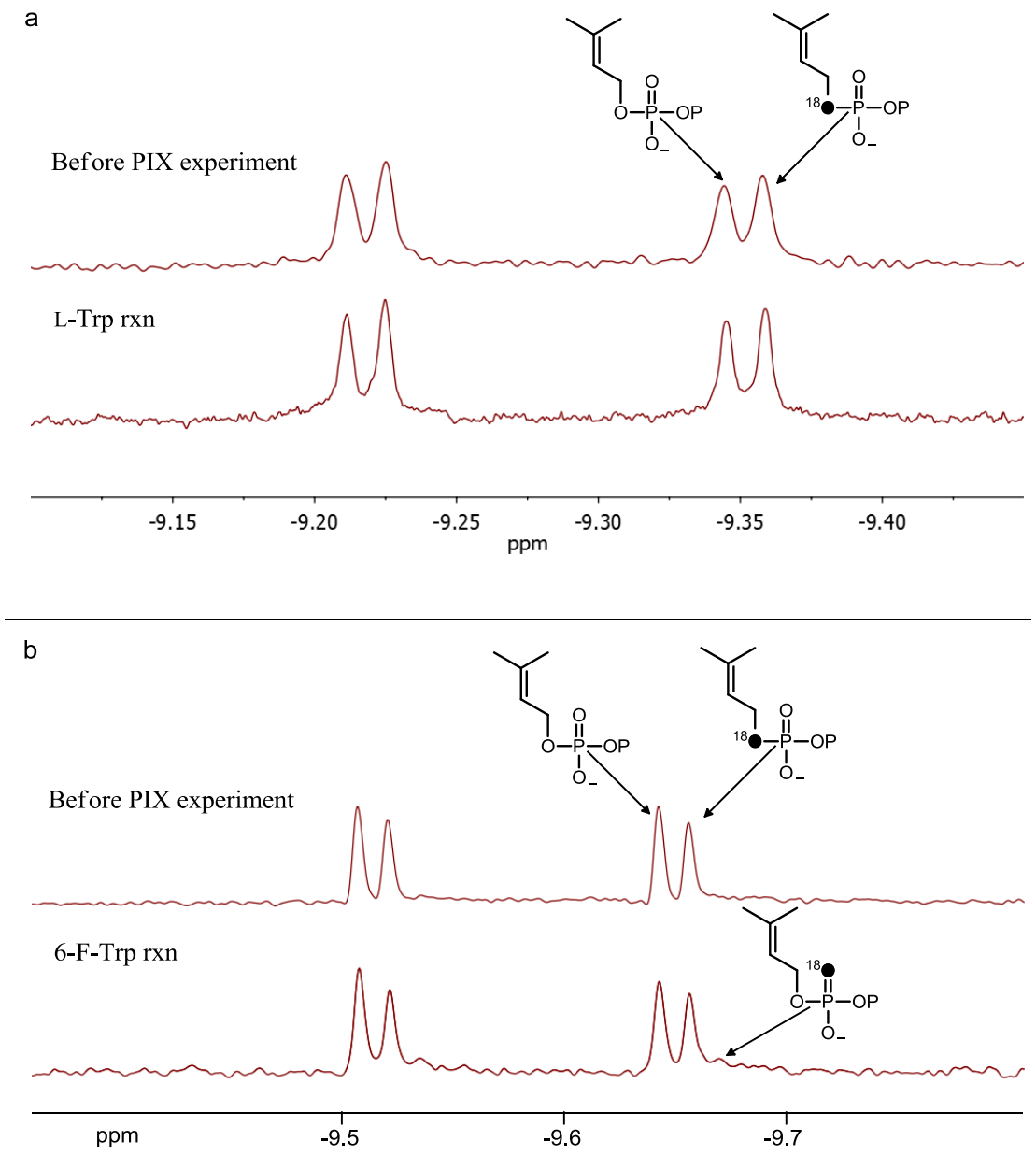

Figure S2. ^{31}P NMR spectra showing the α-phosphorus signals of the DMAPP mixture in the PIX reactions catalyzed by CymD. (a. PIX experiment with L-Trp. b. PIX experiment with 6-F-Trp.)

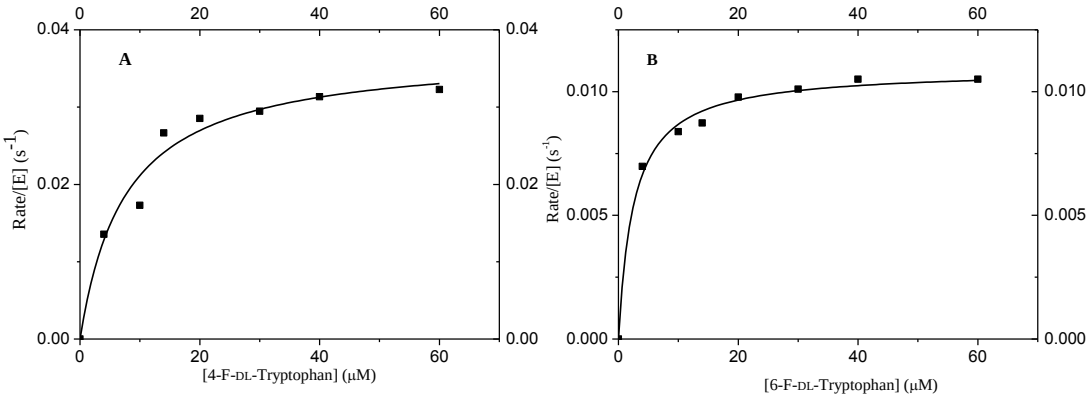

Figure S3. Enzyme kinetics plots of rate/[E] versus [S] for the prenyltransferase CymD with fluorinated tryptophans (variable) and 20 μM DMAPP. (A. 4-F-DL-tryptophan; B. 6-F-DL-tryptophan)

Table S1. Kinetic rates measured for DMAPP and *E*-F-DMAPP.

Conc.[a] / Rate/[E]	10 μM	20 μM
$V_{DMAPP}/[E]$ (s^{-1})	0.031	0.031
$V_{E\text{-F-DMAPP}}/[E]$ (s^{-1})	$2.5*10^{-4}$	$3.2*10^{-4}$
k_{rel}	0.008	0.010

a. In both cases [L-tryptophan] = 100 μM