

**Table S1. Crystallographic data and refinement parameters**

NocT	Unliganded	Nopaline	Pyronopaline	M117N-Pyronopaline
PDB code	4P0I	4POX	4POW	4PP0
Space group Cell parameters (Å, °)	C2 $a = 118.9$ $b = 69.7$ $c = 74.4$ $\beta = 117.9$	$P3_2$ $a = 114.4$ $b = 114.4$ $c = 37.8$	$P3_2$ $a = 114.5$ $b = 114.5$ $c = 37.8$	$P3_2$ $a = 114.6$ $b = 114.6$ $c = 37.9$
Resolution (Å)	38.8- 1.89 (2-1.89)	50- 2.29 (2.43-2.29)	22.7 - 1.55 (1.64- 1.55)	23- 1.57 (1.66-1.57)
No. of observed reflections	259569 (41688)	85996 (13013)	446821 (66404)	437965 (66081)
No. of unique reflections	43103 (6909)	24543 (3717)	80447 (12944)	77698 (12464)
$R_{sym}$ (%)	5.3 (53.4)	10.6 (96.1)	5 (73.6)	4.9 (75)
Completeness (%)	99.4 (99.2)	98.8 (93.1)	99.9 (99.3)	99.8 (99)
I/σ	22.43 (3.61)	9.2 (1.29)	17.3 (2.02)	18.94 (2)
$R_{cryst}$ (%)	20.5	18.9	17	16.7
$R_{free}$ (%)	23.6	21.8	19	18.3
rms bond deviation (Å)	0.01	0.009	0.01	0.01
rms angle deviation (°)	1.06	1.07	1.05	1.03
Average B (Å <sup>2</sup> )				
protein	39.4	49.2	29.6	30.8
ligand	-	44.4	23	22
solvent	38.3	47.7	39.6	39.5

Values for the highest resolution shell are in parentheses