

**Supplementary Table 1. Data collection and refinement statistics.**

	S1dC-Blebbistatin
<b>Data collection</b>	
Space group	C222 <sub>1</sub>
Cell dimensions	
<i>a</i> , <i>b</i> , <i>c</i> (Å)	88.1, 145.8, 152.9
$\alpha$ , $\beta$ , $\gamma$ (°)	118.1, 99.7, 95.4
Resolution (Å)	40-2.0 (2.07-2.0) <sup>a</sup>
<i>R</i> <sub>merge</sub>	6.1 (26.9)
<i>I</i> / $\sigma$ <i>I</i>	24.5 (3.7)
Completeness (%)	99.2 (98.2)
Redundancy	5.8 (5.1)
<b>Refinement</b>	
Resolution (Å)	40-2.0 (2.07-2.0)
No. reflections	392988 (63478)
<i>R</i> <sub>work</sub> / <i>R</i> <sub>free</sub>	0.173 / 0.217
No. atoms	
S1dC	5483
Blebbistatin	22
MgADP-Vanadate	33
Waters	726
<i>B</i> -factors	
S1dC	23.3
Blebbistatin	14.7
MgADP-Vanadate	12.4
Waters	35.5
R.m.s deviations	
Bond lengths (Å)	0.022
Bond angles (°)	1.672

All data was collected from a single S1dC\_Blebbistatin crystal. <sup>a</sup> Highest resolution shell is shown in parenthesis.