

**Table S5.** Coordination distances and temperature factors of the divalent metal ion ( $M^{2+}$ ) and its ligand atoms in the substrate free form

	Substrate free (mouse)		Substrate free (human) <sup>*1</sup>	
	Chain A	Chain B	Chain A	Chain B
Distance (Å)				
$M^{2+}$ -Glu18	2.2	2.3	2.3	2.3
$M^{2+}$ -Asn154	2.4	2.2	2.3	2.2
$M^{2+}$ -Asp204	2.2	2.3	2.3	2.2
$M^{2+}$ -Wat1	2.4	-	2.3	2.3
$M^{2+}$ -Wat2	2.3	2.4	2.4	2.4
$M^{2+}$ -Wat3	2.1	2.3	2.3	2.4
B-factor (Å <sup>2</sup> )				
$M^{2+}$	32.6	47.4	11.0	10.8
Glu18	36.0	37.6	18.5	23.7
Asn154	29.4	36.8	11.1	13.7
Asp204	30.4	29.8	9.6	11.5
Wat1	34.3	-	15.8	16.9
Wat2	31.0	44.2	16.6	16.4
Wat3	26.8	35.4	11.6	14.2

\*1 Human SMP30/GNL coordinates determined in this study were used.