

**Supplemental Table S3. Distances of the hydrogen bonds (Å) presented in Figures 3 and 4. Residue name followed by (S) represents the symmetry related partner involved in the hydrogen bond.**

R125	O	...	N	Y128	3.22
R125	N	...	OE1	E82	2.90
R125	NH1	...	OE2	E82	2.93
R125	NE	...	OH	Y128(S)	2.84
R125	NH2	...	OH	Y128(S)	3.11
R125	NH2	...	OH	Y85	3.53
E82	OE2	...	N3	FMN	2.72
Y85	OH	...	OE1	E146(S)	2.57
Y128(S)	OH	...	OE2	E146(S)	2.77