

**Table S1: Summary of sequence-based contact prediction methods in literature.**

Methods	FC <sup>1</sup>	FOVC <sup>2</sup>	HBRH <sup>3</sup>	PROFCON <sup>4</sup>	VWP <sup>5</sup>	SVMCON <sup>6</sup>
Contact atoms	Heavy atoms	C <sub>β</sub>	C <sub>α</sub>	C <sub>β</sub>	C <sub>α</sub>	C <sub>α</sub>
Distance cutoff	4.5Å	8 Å	8 Å	8 Å	8 Å	8 Å
Sequence separation cutoff	4	7	4	6	6	6
# of testing proteins	608	173	1033	633	435	48
Acc	0.16	0.21	0.22	0.32	0.37	0.37
Pct	N/A	0.5	0.5	0.5	0.5	1.0

<sup>1</sup> FC (Fariselli and Casadio, 1999)

<sup>2</sup> FOVC(Fariselli, et al., 2001)

<sup>3</sup> HBRH(Hamilton, et al., 2004)

<sup>4</sup> PROFCON(Punta and Rost, 2005)

<sup>5</sup> VWP(Vullo, et al., 2006)

<sup>6</sup> SVMCON(Cheng and Baldi, 2007)

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