

Table S1. Interface prediction precision comparison between top-ranked ZDOCK and RCF

Complex PDB	Ligand or Receptor	Total Predictions <sup>a</sup>	ZDOCK1 TP <sup>b</sup>	RCF TP <sup>b</sup>	ZDOCK1 Precision	RCF Precision	ZDOCK performance <sup>c</sup>
1A2K	L	26	14	15	0.54	0.58	Others
1A2K	R	28	0	4	0.00	0.14	Others
1ACB	L	31	10	13	0.32	0.42	ZDOCK no hit 2000
1ACB	R	52	19	20	0.37	0.38	ZDOCK no hit 2000
1AK4	L	21	5	5	0.24	0.24	ZDOCK no hit 2000
1AK4	R	37	17	15	0.46	0.41	ZDOCK no hit 2000
1AKJ	L	34	0	2	0.00	0.06	Others
1AKJ	R	32	1	0	0.03	0.00	Others
1ATN	L	50	0	4	0.00	0.08	ZDOCK no hit 2000
1ATN	R	39	0	5	0.00	0.13	ZDOCK no hit 2000
1AVX	L	23	17	11	0.74	0.48	Others
1AVX	R	31	23	21	0.74	0.68	Others
1AY7	L	22	15	13	0.68	0.59	Others
1AY7	R	21	14	10	0.67	0.48	Others
1AZS	L	34	16	17	0.47	0.50	Others
1AZS	R	54	2	8	0.04	0.15	Others
1B6C	L	32	0	7	0.00	0.22	Others
1B6C	R	33	21	22	0.64	0.67	Others
1BKD	L	36	4	22	0.11	0.61	ZDOCK no hit 2000
1BKD	R	49	38	6	0.78	0.12	ZDOCK no hit 2000
1BUH	L	36	13	19	0.36	0.53	Others
1BUH	R	35	0	12	0.00	0.34	Others
1BVN	L	37	27	26	0.73	0.70	ZDOCK 1st hit
1BVN	R	63	32	28	0.51	0.44	ZDOCK 1st hit
1CGI	L	25	20	19	0.80	0.76	Others
1CGI	R	30	15	22	0.50	0.73	Others
1CLV	L	26	23	22	0.88	0.85	ZDOCK 1st hit
1CLV	R	55	38	26	0.69	0.47	ZDOCK 1st hit
1D6R	L	29	4	9	0.14	0.31	ZDOCK no hit 2000
1D6R	R	40	12	18	0.30	0.45	ZDOCK no hit 2000
1DE4	L	39	19	10	0.49	0.26	ZDOCK no hit 2000
1DE4	R	44	3	21	0.07	0.48	ZDOCK no hit 2000
1DFJ	L	63	38	28	0.60	0.44	ZDOCK 1st hit
1DFJ	R	52	37	30	0.71	0.58	ZDOCK 1st hit
1E6E	L	24	14	18	0.58	0.75	Others
1E96	L	41	0	13	0.00	0.32	Others

1E96	R	46	13	15	0.28	0.33	Others
1EAW	L	33	21	21	0.64	0.64	Others
1EAW	R	48	27	28	0.56	0.58	Others
1EER	L	44	34	28	0.77	0.64	ZDOCK no hit 2000
1EER	R	41	18	20	0.44	0.49	ZDOCK no hit 2000
1EFN	L	14	11	10	0.79	0.71	Others
1EFN	R	18	2	3	0.11	0.17	Others
1EWY	L	36	20	20	0.56	0.56	Others
1EZU	L	52	24	20	0.46	0.38	Others
1EZU	R	65	20	24	0.31	0.37	Others
1F34	L	41	0	27	0.00	0.66	Others
1F34	R	43	2	13	0.05	0.30	Others
1F51	L	28	23	20	0.82	0.71	ZDOCK 1st hit
1F51	R	38	0	5	0.00	0.13	ZDOCK 1st hit
1F6M	L	48	25	28	0.52	0.58	ZDOCK no hit 2000
1F6M	R	57	5	8	0.09	0.14	ZDOCK no hit 2000
1FAK	L	26	12	13	0.46	0.50	ZDOCK no hit 2000
1FAK	R	30	7	17	0.23	0.57	ZDOCK no hit 2000
1FC2	L	62	0	3	0.00	0.05	ZDOCK no hit 2000
1FC2	R	44	10	12	0.23	0.27	ZDOCK no hit 2000
1FCC	L	42	13	14	0.31	0.33	ZDOCK no hit 2000
1FCC	R	56	0	4	0.00	0.07	ZDOCK no hit 2000
1FFW	L	19	12	13	0.63	0.68	Others
1FFW	R	21	15	7	0.71	0.33	Others
1FLE	L	32	20	19	0.63	0.59	Others
1FLE	R	33	0	4	0.00	0.12	Others
1FQ1	L	26	6	9	0.23	0.35	ZDOCK no hit 2000
1FQ1	R	33	0	6	0.00	0.18	ZDOCK no hit 2000
1FQJ	L	31	2	8	0.06	0.26	ZDOCK no hit 2000
1FQJ	R	34	5	3	0.15	0.09	ZDOCK no hit 2000
1GCQ	L	46	14	13	0.30	0.28	Others
1GCQ	R	62	7	11	0.11	0.18	Others
1GHQ	L	27	0	1	0.00	0.04	ZDOCK no hit 2000
1GHQ	R	40	0	0	0.00	0.00	ZDOCK no hit 2000
1GL1	L	26	20	17	0.77	0.65	Others
1GL1	R	46	28	22	0.61	0.48	Others
1GLA	L	43	0	18	0.00	0.42	ZDOCK no hit 2000
1GLA	R	37	0	2	0.00	0.05	ZDOCK no hit 2000
1GP2	L	37	22	23	0.59	0.62	ZDOCK no hit 2000

1GP2	R	34	1	6	0.03	0.18	ZDOCK no hit 2000
1GPW	L	23	23	22	1.00	0.96	Others
1GPW	R	32	29	15	0.91	0.47	Others
1GRN	L	48	18	12	0.38	0.25	Others
1GRN	R	41	24	17	0.59	0.41	Others
1GXD	L	45	9	22	0.20	0.49	Others
1GXD	R	56	0	4	0.00	0.07	Others
1H1V	L	49	4	1	0.08	0.02	ZDOCK no hit 2000
1H1V	R	58	4	14	0.07	0.24	ZDOCK no hit 2000
1H9D	L	50	21	19	0.42	0.38	Others
1H9D	R	47	22	23	0.47	0.49	Others
1HCF	L	29	8	12	0.28	0.41	Others
1HCF	R	44	0	10	0.00	0.23	Others
1HE1	L	24	12	16	0.50	0.67	Others
1HE1	R	20	5	8	0.25	0.40	Others
1HE8	L	43	9	14	0.21	0.33	ZDOCK no hit 2000
1HE8	R	44	0	0	0.00	0.00	ZDOCK no hit 2000
1HIA	L	25	16	16	0.64	0.64	ZDOCK no hit 2000
1HIA	R	33	7	7	0.21	0.21	ZDOCK no hit 2000
1I2M	L	40	26	24	0.65	0.60	Others
1I2M	R	32	18	18	0.56	0.56	Others
1I4D	L	25	17	17	0.68	0.68	Others
1I4D	R	31	1	7	0.03	0.23	Others
1IB1	L	80	17	20	0.21	0.25	ZDOCK no hit 2000
1IB1	R	82	25	23	0.30	0.28	ZDOCK no hit 2000
1IBR	L	34	0	2	0.00	0.06	ZDOCK no hit 2000
1IBR	R	35	8	9	0.23	0.26	ZDOCK no hit 2000
1IJK	L	38	20	7	0.53	0.18	Others
1IJK	R	41	19	17	0.46	0.41	Others
1IRA	L	35	24	21	0.69	0.60	ZDOCK no hit 2000
1IRA	R	38	0	13	0.00	0.34	ZDOCK no hit 2000
1J2J	L	23	10	11	0.43	0.48	Others
1J2J	R	31	12	11	0.39	0.35	Others
1JIW	L	21	10	9	0.48	0.43	ZDOCK no hit 2000
1JIW	R	23	1	10	0.04	0.43	ZDOCK no hit 2000
1JK9	L	32	16	21	0.50	0.66	ZDOCK no hit 2000
1JK9	R	38	14	7	0.37	0.18	ZDOCK no hit 2000
1JMO	L	26	5	12	0.19	0.46	ZDOCK no hit 2000
1JMO	R	41	8	8	0.20	0.20	ZDOCK no hit 2000

1JTG	R	57	40	24	0.70	0.42	ZDOCK 1st hit
1JWH	L	35	25	4	0.71	0.11	ZDOCK 1st hit
1JWH	R	30	17	12	0.57	0.40	ZDOCK 1st hit
1JZD	L	36	19	17	0.53	0.47	ZDOCK no hit 2000
1JZD	R	39	8	7	0.21	0.18	ZDOCK no hit 2000
1K5D	L	68	8	16	0.12	0.24	Others
1K5D	R	43	1	14	0.02	0.33	Others
1K74	L	46	28	5	0.61	0.11	ZDOCK 1st hit
1K74	R	44	27	11	0.61	0.25	ZDOCK 1st hit
1KAC	L	32	20	17	0.63	0.53	Others
1KAC	R	39	0	8	0.00	0.21	Others
1KKL	L	28	14	21	0.50	0.75	ZDOCK no hit 2000
1KKL	R	41	0	1	0.00	0.02	ZDOCK no hit 2000
1KLU	L	36	0	6	0.00	0.17	Others
1KLU	R	34	10	3	0.29	0.09	Others
1KTZ	L	30	1	9	0.03	0.30	Others
1KTZ	R	29	2	5	0.07	0.17	Others
1KXP	L	67	45	44	0.67	0.66	ZDOCK 1st hit
1KXP	R	61	35	26	0.57	0.43	ZDOCK 1st hit
1LFD	L	26	0	8	0.00	0.31	Others
1LFD	R	23	9	12	0.39	0.52	Others
1M10	L	31	0	2	0.00	0.06	ZDOCK no hit 2000
1M10	R	30	20	15	0.67	0.50	ZDOCK no hit 2000
1MAH	L	25	21	17	0.84	0.68	ZDOCK 1st hit
1MAH	R	43	31	23	0.72	0.53	ZDOCK 1st hit
1ML0	L	35	27	22	0.77	0.63	Others
1MQ8	L	20	0	9	0.00	0.45	ZDOCK no hit 2000
1MQ8	R	12	0	0	0.00	0.00	ZDOCK no hit 2000
1N2C	L	37	0	15	0.00	0.41	ZDOCK no hit 2000
1N80	L	27	19	10	0.70	0.37	ZDOCK 1st hit
1N80	R	42	12	12	0.29	0.29	ZDOCK 1st hit
1NW9	L	33	4	7	0.12	0.21	ZDOCK no hit 2000
1NW9	R	41	15	16	0.37	0.39	ZDOCK no hit 2000
1OC0	L	18	10	11	0.56	0.61	ZDOCK no hit 2000
1OC0	R	31	10	12	0.32	0.39	ZDOCK no hit 2000
1OFU	L	41	0	9	0.00	0.22	Others
1OFU	R	28	0	5	0.00	0.18	Others
1OPH	L	41	10	15	0.24	0.37	ZDOCK no hit 2000
1OPH	R	26	8	10	0.31	0.38	ZDOCK no hit 2000

1OYV	L	36	27	14	0.75	0.39	ZDOCK 1st hit
1OYV	R	47	38	19	0.81	0.40	ZDOCK 1st hit
1PPE	L	19	16	14	0.84	0.74	ZDOCK 1st hit
1PPE	R	45	24	22	0.53	0.49	ZDOCK 1st hit
1PVH	L	47	14	6	0.30	0.13	Others
1PVH	R	50	1	16	0.02	0.32	Others
1PXV	R	55	53	43	0.96	0.78	ZDOCK no hit 2000
1QA9	L	31	0	0	0.00	0.00	ZDOCK no hit 2000
1QA9	R	37	1	1	0.03	0.03	ZDOCK no hit 2000
1R0R	L	32	12	8	0.38	0.25	Others
1R0R	R	31	1	7	0.03	0.23	Others
1R6Q	L	41	12	14	0.29	0.34	Others
1R6Q	R	39	25	13	0.64	0.33	Others
1R8S	L	47	31	29	0.66	0.62	ZDOCK no hit 2000
1R8S	R	40	7	11	0.18	0.28	ZDOCK no hit 2000
1RLB	L	35	17	16	0.49	0.46	ZDOCK 1st hit
1RLB	R	43	22	18	0.51	0.42	ZDOCK 1st hit
1RV6	L	31	1	18	0.03	0.58	Others
1RV6	R	33	21	14	0.64	0.42	Others
1S1Q	L	30	19	23	0.63	0.77	Others
1S1Q	R	24	8	7	0.33	0.29	Others
1SBB	L	49	2	14	0.04	0.29	Others
1SBB	R	42	0	1	0.00	0.02	Others
1SYX	L	24	1	5	0.04	0.21	ZDOCK no hit 2000
1SYX	R	29	7	4	0.24	0.14	ZDOCK no hit 2000
1T6B	L	20	3	4	0.15	0.20	Others
1T6B	R	20	20	15	1.00	0.75	Others
1TMQ	L	44	27	13	0.61	0.30	Others
1TMQ	R	57	32	31	0.56	0.54	Others
1UDI	R	34	7	15	0.21	0.44	Others
1US7	L	40	0	9	0.00	0.23	Others
1US7	R	46	15	13	0.33	0.28	Others
1WDW	L	38	33	26	0.87	0.68	Others
1WDW	R	47	0	14	0.00	0.30	Others
1WQ1	L	40	17	27	0.43	0.68	Others
1WQ1	R	50	30	24	0.60	0.48	Others
1XD3	L	31	23	21	0.74	0.68	Others
1XD3	R	29	28	22	0.97	0.76	Others
1XQS	L	30	30	18	1.00	0.60	Others

1XQS	R	35	35	28	1.00	0.80	Others
1XU1	L	19	5	7	0.26	0.37	Others
1XU1	R	26	3	2	0.12	0.08	Others
1Y64	L	53	32	23	0.60	0.43	ZDOCK no hit 2000
1Y64	R	42	21	10	0.50	0.24	ZDOCK no hit 2000
1YVB	L	25	14	13	0.56	0.52	Others
1Z0K	L	21	19	20	0.90	0.95	Others
1Z0K	R	24	23	20	0.96	0.83	Others
1Z5Y	L	26	20	18	0.77	0.69	Others
1Z5Y	R	30	26	17	0.87	0.57	Others
1ZHH	L	44	0	16	0.00	0.36	ZDOCK no hit 2000
1ZHH	R	31	0	4	0.00	0.13	ZDOCK no hit 2000
1ZHI	L	46	0	10	0.00	0.22	Others
1ZHI	R	39	0	5	0.00	0.13	Others
1ZLI	L	34	23	19	0.68	0.56	ZDOCK no hit 2000
1ZLI	R	53	14	10	0.26	0.19	ZDOCK no hit 2000
1ZM4	R	72	25	16	0.35	0.22	Others
2A5T	L	29	8	5	0.28	0.17	ZDOCK no hit 2000
2A5T	R	38	23	7	0.61	0.18	ZDOCK no hit 2000
2A9K	L	42	15	10	0.36	0.24	ZDOCK no hit 2000
2A9K	R	37	10	18	0.27	0.49	ZDOCK no hit 2000
2ABZ	R	29	17	9	0.59	0.31	Others
2AJF	L	36	2	24	0.06	0.67	ZDOCK no hit 2000
2AJF	R	36	0	3	0.00	0.08	ZDOCK no hit 2000
2AYO	L	30	20	20	0.67	0.67	Others
2AYO	R	26	0	2	0.00	0.08	Others
2B42	L	43	25	25	0.58	0.58	Others
2B42	R	41	29	24	0.71	0.59	Others
2B4J	L	22	12	7	0.55	0.32	ZDOCK no hit 2000
2B4J	R	23	10	4	0.43	0.17	ZDOCK no hit 2000
2BTF	L	40	3	9	0.08	0.23	Others
2BTF	R	55	21	17	0.38	0.31	Others
2COL	L	33	6	7	0.18	0.21	ZDOCK no hit 2000
2COL	R	49	1	8	0.02	0.16	ZDOCK no hit 2000
2CFH	L	33	17	20	0.52	0.61	Others
2CFH	R	39	36	31	0.92	0.79	Others
2FJU	L	49	0	13	0.00	0.27	Others
2FJU	R	58	0	5	0.00	0.09	Others
2G77	L	34	23	22	0.68	0.65	Others

2G77	R	34	3	10	0.09	0.29	Others
2H7V	L	28	17	15	0.61	0.54	Others
2HLE	L	26	13	16	0.50	0.62	Others
2HLE	R	37	0	2	0.00	0.05	Others
2HQS	L	42	23	18	0.55	0.43	Others
2HQS	R	43	0	14	0.00	0.33	Others
2HRK	L	24	10	13	0.42	0.54	Others
2HRK	R	33	11	13	0.33	0.39	Others
2I9B	L	37	21	22	0.57	0.59	ZDOCK no hit 2000
2I9B	R	29	0	1	0.00	0.03	ZDOCK no hit 2000
2IDO	L	35	19	20	0.54	0.57	ZDOCK no hit 2000
2IDO	R	45	22	16	0.49	0.36	ZDOCK no hit 2000
2J0T	L	40	0	11	0.00	0.28	ZDOCK no hit 2000
2J0T	R	35	19	15	0.54	0.43	ZDOCK no hit 2000
2J7P	L	32	7	6	0.22	0.19	ZDOCK no hit 2000
2J7P	R	32	4	9	0.13	0.28	ZDOCK no hit 2000
2MTA	L	25	15	14	0.60	0.56	Others
2MTA	R	34	4	15	0.12	0.44	Others
2NZ8	L	38	18	20	0.47	0.53	Others
2NZ8	R	43	24	14	0.56	0.33	Others
2O3B	L	34	12	12	0.35	0.35	ZDOCK no hit 2000
2O3B	R	41	0	16	0.00	0.39	ZDOCK no hit 2000
2O8V	L	45	41	34	0.91	0.76	Others
2O8V	R	47	16	18	0.34	0.38	Others
2O0B	L	20	16	17	0.80	0.85	ZDOCK no hit 2000
2O0B	R	22	9	10	0.41	0.45	ZDOCK no hit 2000
2O0R	L	33	8	18	0.24	0.55	ZDOCK no hit 2000
2O0R	R	54	0	10	0.00	0.19	ZDOCK no hit 2000
2OT3	L	27	11	13	0.41	0.48	ZDOCK no hit 2000
2OT3	R	26	18	17	0.69	0.65	ZDOCK no hit 2000
2OUL	L	34	29	22	0.85	0.65	ZDOCK 1st hit
2OUL	R	46	40	22	0.87	0.48	ZDOCK 1st hit
2OZA	L	27	18	10	0.67	0.37	ZDOCK no hit 2000
2OZA	R	31	12	14	0.39	0.45	ZDOCK no hit 2000
2PCC	L	32	10	12	0.31	0.38	Others
2PCC	R	30	11	11	0.37	0.37	Others
2SIC	L	34	16	15	0.47	0.44	Others
2SIC	R	44	23	16	0.52	0.36	Others
2SNI	L	32	16	17	0.50	0.53	Others

2SNI	R	50	14	15	0.28	0.30	Others
2UUY	R	40	17	20	0.43	0.50	Others
2VDB	L	20	4	13	0.20	0.65	Others
2VDB	R	38	0	5	0.00	0.13	Others
2Z0E	L	39	25	23	0.64	0.59	ZDOCK no hit 2000
2Z0E	R	49	1	5	0.02	0.10	ZDOCK no hit 2000
3BP8	L	26	0	12	0.00	0.46	Others
3BP8	R	39	0	0	0.00	0.00	Others
3CPH	R	36	10	11	0.28	0.31	ZDOCK no hit 2000
3D5S	L	19	9	7	0.47	0.37	Others
3D5S	R	23	3	0	0.13	0.00	Others
3SGQ	L	19	5	7	0.26	0.37	Others
3SGQ	R	25	0	10	0.00	0.40	Others
4CPA	R	40	26	11	0.65	0.28	ZDOCK 1st hit
7CEI	L	33	17	13	0.52	0.39	ZDOCK 1st hit
7CEI	R	30	18	14	0.60	0.47	ZDOCK 1st hit

*a.* Total number of predicted interface residues with top-ranked ZDOCK prediction (ZDOCK1) and RCF was asked to make the same number of interface residues for comparison.

*b.* True Positives (TP) that are correctly predicted as interface residues with the given method.

*c.* ZDOCK performance classification for the given test case. Test cases are classified as “ZDOCK 1st hit” when the top-ranked ZDOCK prediction is a hit (interface RMSD  $\leq 2.5$  Å) and classified as “ZDOCK no hit 2000” when there is no hit within the top 2000 ZDOCK predictions. The remaining test cases, which have hits between rank 2 and 2000 but not at rank 1, are classified as “Others”.



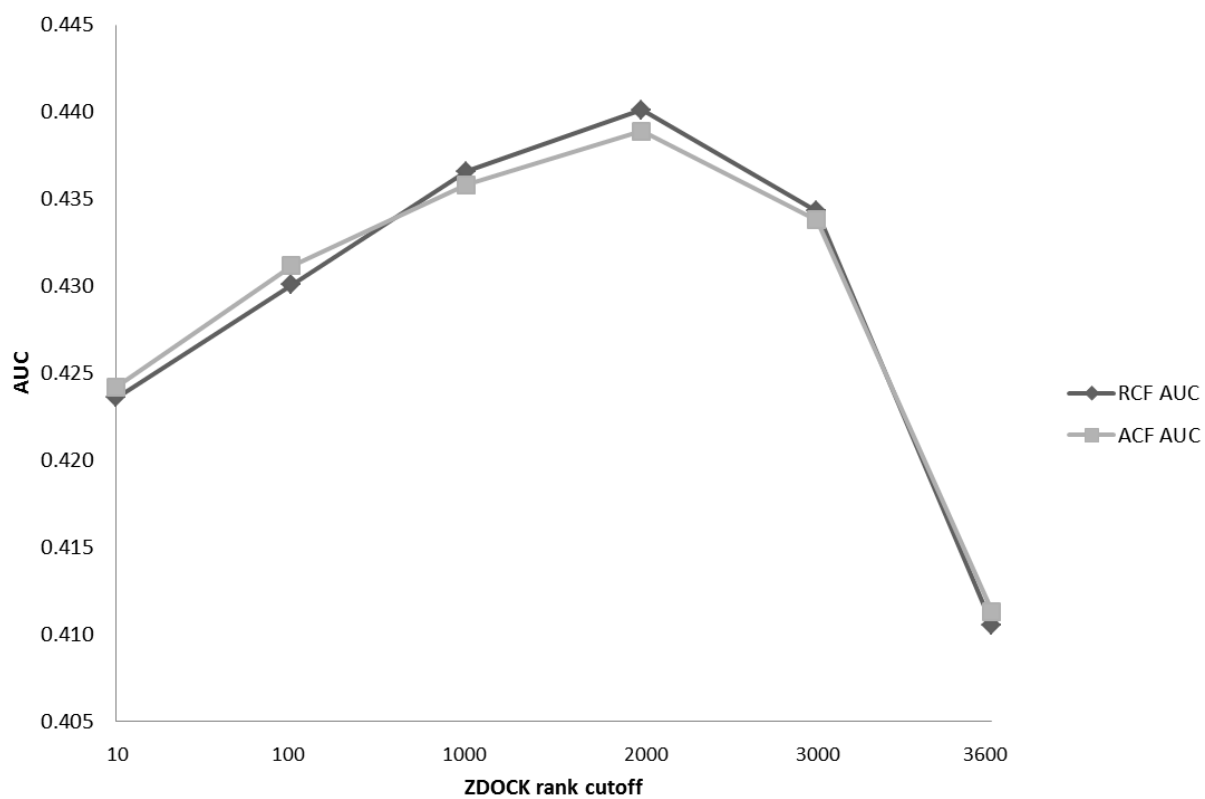


Figure S1. The Precision-Recall curve AUC for RCF and ACF at different rank cutoffs for ZDOCK prediction.

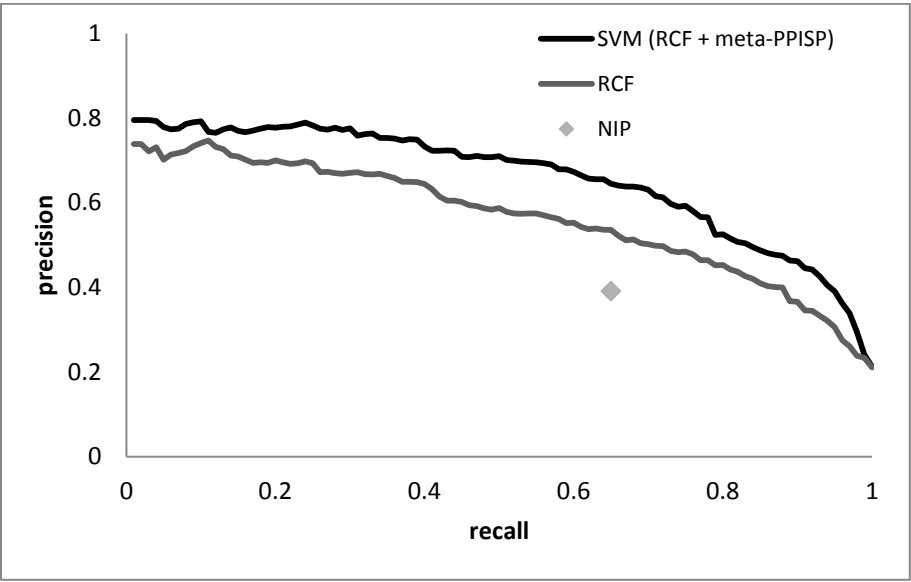


Figure S2. RCF and SVM Precision-Recall curve for the 12 cases (24 proteins) shared between this study and Fernandez-Recio et al.<sup>17</sup>, and the averaged precision and recall values for NIP.