

1 **Table S1. Features of protein-protein pairs in Arabidopsis.**

<b>Features</b>	<b>Protein pairs</b>	<b>Coverage</b>
Structural similarity	39,439,520	11.48%
Structural distance	39,439,520	11.48%
Preserved interface size	31,625,234	9.21%
Fraction of preserved interface	31,625,234	9.21%
Biological process ontology	210,586,502	61.32%
Molecular function ontology	211,428,752	61.57%
Cellular component ontology	39,867,985	11.61%
Gene coexpression	204,353,436	59.51%
Phylogenetic profile	343,416,528	100%
Interolog	679,718	0.20%
Rosetta stone	979,649	0.29%

2 Note: Coverage denotes the number of protein pairs with an available given feature  
3 (structural similarity, structural distance, preserved interface size, fraction of the  
4 preserved interface, biological process ontology, molecular function ontology, cellular  
5 component ontology, gene coexpression, phylogenetic profile, interolog and Rosetta  
6 stone) was divided by the total number of possible interactions (343,416,528).

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26 **Table S4. The Predicted PPIs were Screened out with Yeast Two-hybrid.**

<b>Protein 1</b>	<b>Protein 2</b>	<b>Two-hybrid test</b>
PYL1	AT5G19280	Negative
PYL1	AT5G13530	Negative
PYL1	AT4G27800	Negative
PYL1	AT4G17615	Negative
PYL1	AT4G09570	Negative
PYL1	AT3G26090	Negative
PYL1	AT3G16857	Positive
PYL1	AT1G48270	Negative
ABI5	AT5G17490	Negative
ABI5	AT5G10140	Negative
ABI5	AT5G10120	Negative
ABI5	AT5G06960	Positive
ABI5	AT4G35050	Negative
ABI5	AT4G32980	Negative
ABI5	AT4G24210	Negative
ABI5	AT4G12570	Negative
ABI5	AT4G02590	Negative
ABI5	AT3G57530	Negative
ABI5	AT3G22840	Positive
ABI5	AT3G03450	Negative
ABI5	AT2G32950	Negative
ABI5	AT2G24260	Negative
ABI5	AT2G22540	Negative
ABI5	AT2G01760	Negative
ABI5	AT2G01570	Negative
ABI5	AT1G67030	Negative
ABI5	AT1G61290	Negative
ABI5	AT1G13260	Positive
ABI5	AT1G12610	Positive

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35 **Table S5. Presence of PPIs in Arabidopsis from various databases.**

<b>Database</b>	<b>BioGRID</b>	<b>IntAct</b>	<b>DIP</b>	<b>MINT</b>	<b>BIND</b>	<b>Overall</b>
<b>BioGRID</b>	13,813	7,267	97	65	802	13,813
<b>IntAct</b>		10,729	78	39	736	10,729
<b>DIP</b>			249	6	7	249
<b>MINT</b>				130	9	130
<b>BIND</b>					990	990
<b>Overall</b>						17,569

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37 **Table S6. The gold standard PPI data from various databases.**

<b>Database</b>	<b>Number of Interactions (small-scale dataset)</b>	<b>Number of Interactions (high-throughput dataset with more than one supporting publication)</b>	<b>Overall</b>
<b>BioGRID</b>	3,523	175	3,639
<b>IntAct</b>	2,560	180	2,678
<b>DIP</b>	224	0	224
<b>MINT</b>	116	0	116
<b>BIND</b>	530	19	538
<b>Overall</b>	4,952	190	5,080

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40 **Table S7. Availability of PPIs in six model organisms from various databases.**

<b>Organism</b>	<b>BioGRID</b>	<b>IntAct</b>	<b>DIP</b>	<b>MINT</b>	<b>BIND</b>
<i>C. elegans</i>	8,157	11,643	4,056	7,373	5,418
<i>D. melanogaster</i>	45,804	29,155	22,986	23,443	23,381
<i>H. sapiens</i>	174,516	68,202	2,995	26,607	12,842
<i>M. musculus</i>	10,093	10,223	699	2,858	3,208
<i>S. cerevisiae</i>	318,572	91,690	22,367	48,427	11,348
<i>E. coli</i>	0	17,035	12,688	4,926	70

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