

Supplementary Table-3

The common conserved inter-species bacterial PPI was made using conserved common 75 *E. coli* proteins and using VisANT tool.

3a)

These 75 proteins interact with other proteins and form a PPI network having 1674 interactions involving 666 interacting nodes (proteins). Total 27 pathways that include both bacterial essential survival and virulence can be mapped. Methods that are behind this PPI are also listed.

Nodes

Total	Expanded	Pathway Mapped	Expanded/Pathway Mapped
666	51	27	0.5294118

Interactions

Found by 2 method(s)	771	Found by 3 method(s)	144
Found by 4 method(s)	5	Found by 5 method(s)	1
Found by 6 method(s)	5	Found by 7 method(s)	0
Found by 8 method(s)	1	Total	1674
tandem affinity purification	1210		
chromatography technology	1		
fluorescence technology	2		
Biochemical Activity	2		
protein complementation assay	3		
gene neighbourhoods	68		
phylogenetic profile	207		
domain fusion	80		
comigration in non denaturing gel electrophoresis	2		
two hybrid test	2		
anti tag coimmunoprecipitation	281		
cosedimentation	4		
electron microscopy	2		
Other Biophysical	10		
resonance energy transfer	2		
inferred by author	755		
surface plasmon resonance	1		

molecular sieving	13
structure based prediction	19
affinity technology	1
cross-linking studies	58
coimmunoprecipitation	53
x-ray crystallography	8

Mapped Pathways

Pathway ID	Number of Nodes	Pathway ID	Number of Nodes
01120	1	00520	1
00240	1	00550	1
00410	1	00750	1
03018	1	00190	1
02010	5	00640	1
01100	13	00670	1
00500	1	03010	5
00250	1	00620	2
03440	1	00340	1
00680	1	01110	5
00230	1	00260	1
00290	1	00400	2
00430	1	00770	1
00970	2	00660	1

3b)

Internal interactions of these 75 proteins form a PPI network having 142 interactions. Total 23 pathways that include both bacterial essential survival and virulence can be mapped. Methods that are behind this PPI are also listed.

Nodes

Total	Expanded	Pathway Mapped	Expanded/Pathway Mapped
75	75	23	0.2987013

Interactions

Found by 1 method(s)	1	Found by 2 method(s)	32
Found by 3 method(s)	19	Found by 4 method(s)	0
Found by 5 method(s)	0	Found by 6 method(s)	4
Found by 7 method(s)	0	Found by 8 method(s)	0

Found by 9 method(s)	2	Total	142
mass spectrometry studies of complexes	2		
tandem affinity purification	88		
chromatography technology	2		
Biochemical Activity	2		
protein complementation assay	3		
gene neighbourhoods	17		
phylogenetic profile	22		
domain fusion	2		
pull down	2		
comigration in non denaturing gel electrophoresis	4		
anti tag coimmunoprecipitation	33		
cosedimentation	4		
Other Biophysical	3		
electron microscopy	3		
inferred by author	32		
molecular sieving	6		
structure based prediction	6		
cross-linking studies	18		
coimmunoprecipitation	2		
x-ray crystallography	5		
nuclear magnetic resonance	1		

Mapped Pathways

Pathway ID	Number of Nodes	Pathway ID	Number of Nodes
01120	2	00520	1
00240	2	00550	1
00190	1	02010	6
00640	1	01100	13
00500	1	00250	1
02020	2	00620	2
00340	1	00680	1
01110	5	03020	1
00230	2	00260	1
00290	1	00400	2
00430	1	00010	1
00970	2	00660	1