

**Table S3. Predicted disulfide bonds for CysRPs.**

Assigned name	Total cysteines	Cysteine position in the amino acid sequence	Cyscon <sup>1</sup>	DISULFIND <sup>2</sup>	DiANNA <sup>3</sup>	CYS_REC <sup>4</sup>	SCRATCH <sup>5</sup>
LsCysRP1	7	31, 40, 42, 44, 76, 77, 83	31-83 40-77 44-76	40 - 76 42 - 77 44 - 83	40 - 76 42 - 44 77 - 83	40-76 42-83 44-77	77 - 83 31 - 40 44 - 76
LsCysRP2	9	34, 35, 39, 41, 49, 50, 57, 81	34 - 41 35 - 50 49 - 57	34 - 41 35 - 39 49 - 81 50 - 57	34 - 57 35 - 49 39 - 41 50 - 81	34-39 41-49 50-60	35 - 49 31 - 57 34 - 50
LsCysRP3	8	30, 40, 54, 55, 75, 77, 100	30 - 77 40 - 54 75 - 100	40 - 55 54 - 75 77 - 100	30 - 77 40 - 54 55 - 100	30 - 54 40 - 77 55 - 100	54 - 75 55 - 100 11 - 30
LsCysRP4	4	13, 16, 17, 93	---	---	---	---	---
LsCysRP5	12	49, 53, 57, 66, 70, 73, 74, 77, 79, 91, 93, 106	49 - 77 53 - 70 57 - 66 73 - 93 74 - 106 79 - 91	Connectivity Pattern can be predicted for up to 5 bonds.	49 - 93 53 - 73 57 - 66 70 - 106 74 - 79 77 - 91	49 - 74 53 - 73 57 - 77 66 - 79 70 - 91	49 - 53 77 - 93 74 - 106 79 - 91 57 - 70
NpCysRP1	12	27, 34, 40, 41, 45, 55, 65, 72, 78, 79, 83, 93	27 - 55 34 - 83 40 - 72 41 - 78 45 - 79 79 - 93	Connectivity Pattern can be predicted for up to 5 bonds.	Many posibel connectivity	27 - 40 34 - 78 41 - 79 45 - 55 65 - 83 72 - 93	34 - 45 78 - 93 27 - 41 40 - 55 72 - 83 65 - 79
NpCysRP2	9	35, 49, 58, 59, 65, 71, 86, 96, 100	35 - 49 59 - 86 65 - 71 96 - 100	49 - 86 58 - 96 59 - 65 71 - 100	35 - 59 58 - 71 65 - 100 86 - 96	49 - 71 58 - 100 59 - 86 65 - 96	49 - 65 86 - 96 58 - 71 35 - 59
NpCysRP3	8	26, 28, 45, 88, 105, 110, 115, 120	28 - 105 45 - 88 110 - 120	26 - 120 28 - 45 88 - 115 105 - 110	26 - 28 45 - 120 88 - 110 105 - 115	28 - 105 45 - 115 88 - 110	88 - 110 105 - 115 28 - 45
NpCysRP4	11	26,30,38,45,47,58,59,64, 80, 94, 166	26 - 45 30 - 57 38 - 58 59 - 80 94 - 166	26 - 30 38 - 166 45 - 58 47 - 64 59 - 80	26 - 59 38 - 166 45 - 80 47 - 58 64 - 94	26 - 45 30 - 59 38 - 58 64 - 94 80 - 166	30 - 47 94 - 167 26 - 45 38 - 64 59 - 80
NpCysRP5	8	27, 31, 41, 49, 51, 63, 68, 84	27 - 63 41 - 51 68 - 84	27 - 63 31 - 68 41 - 84 49 - 51	27 - 49 31 - 68 41 - 63 51 - 84	27-63 31-41 51-68	51 - 63 68 - 84 41 - 49

<sup>1</sup>Jing Yang<sup>^</sup>, Bao-Ji He<sup>^</sup>, Richard Jang, Yang Zhang, and Hong-Bin Shen, *Bioinformatics*, 2015, 31: 3773-3781.<sup>2</sup>A. Ceroni, A. Passerini, A. Vullo and P. Frasconi, *Nucleic Acids Research*, 2006, 34(Web Server issue):W177–W181.<sup>3</sup>F. Ferre and P. Clote, *Nucleic Acids Res.* 2006 Jul 1; 34(Web Server issue): W182–W185.<sup>4</sup>Softberry Web Site [http://www.softberry.com/berry.phtml?topic=cys\\_rec&group=programs&subgroup=propt](http://www.softberry.com/berry.phtml?topic=cys_rec&group=programs&subgroup=propt)<sup>5</sup>Scratch Proteina Prediction <http://scratch.proteomics.ics.uci.edu/index.html>