

Supplemental Table 1

Peptide analysis of systemically translocated BQCmPP tracer proteins.

Spot Series	Identity	Observed Mass(m/z) ^c	Theoretical Mass(m/z) ^c	Assigned Peptide
BQCmPP16	CmPP16-2	779.47 ^f	570.33	122-125 <u>IYFK</u>
		1068.65	1068.58	15- 24 <u>GLQALDPLNK</u>
		1911.77	1911.99	106-121 GWSELPPRMYQVLAHK
		1240.61	1240.60	46- 56 <u>NAGDPDWNEK</u>
		1306.46	1306.67	25- 35 PIDPYAEINFK
		1728.51	1728.71 ^a	2-14 (N-biotin)GMGMMEVHLISGK
		1877.93	1877.82	76- 92 VMDHDAIDGDDYIGDVK
		1925.63	1925.98	59- 75 FLVEYPGSGGDFHILFK
		2540.80	2540.50 ^a	57- 75 <u>EK(-biotin)</u> <u>FLVEYPGSGGDFHILFK</u>
BQCmPP19	CmPP16-1	1092.60	1092.58	15- 24 GLQAHDPLNK
		1240.89	1240.60	46- 56 <u>NAGPNPLWDEK</u>
		1306.59	1306.67	25- 35 PIDPYAEINFK
		1562.90	1562.60 ^b	136-150 <u>LQGGGC(-CAM)GGC(-CAM)</u> <u>NPWEN</u>
		1728.96	1728.71 ^a	2-14 (N-biotin)GMGMMEVHLISGK
		1793.96	1793.87 ^a	93-105 IDVK(-biotin)NLLAEGVRK
		1877.99	1877.82	76- 92 VMDHDAIDGDDYIGDVK
		1897.98	1897.95	59-75 FLAEYPGSGGDFHILFK
		2512.06	2512.11 ^a	57-75 <u>EK(-biotin)</u> <u>FLAEYPGSGGDFHILFK</u>
BQCmPP48	SLW1	1470.77	1470.77 ^d	216-228 ^e <u>TYGHLFHSGLPNK</u>
	ortholog	2375.99	2376.30 ^d	229-249 ^e <u>AINALELAMDALKPIQLNFYK</u>
		2822.18	2821.46 ^d	44- 69 ^e <u>EDLVGAHVREVLDPYSTENGGPLIIK</u>
		2936.31	2936.43 ^{b d}	189-215 ^e <u>GGPLYWVDTADSQPC(-CAM)</u> <u>IGTGGTIPWFIK</u>

Underlined bold letters indicate amino acid sequences obtained by Edman sequencing. Double-underlined letters indicate amino acid substitution from database sequences (accession number Q9ZT47 and Q9ZT46 for CmPP16-1 and CmPP16-2, respectively).

^a predicted mass of biotinylated peptide. Biotinylation adds m/z=339 to theoretical mass.

^b predicted mass of cysteine-modified peptide. ^c monoisotopic mass value. ^d predicted

mass values based on actual sequences. ^e corresponding region of *Cucurbita pepo* SLW1 (AAG25896). ^f modification and/or amino acid substitution was unidentified. Abbreviations of modification: (N-biotin), N-terminal biotinylation; (-biotin), biotinylation; C(-CAM), carboxymethyl cystein.