

**Table S1** Identification of MVB072-labeled Proteins from *N. benthamiana*

| peptide   | XCorr  | DeltCN | ZScore | Ion%  | spectra | charge |
|---|--------|--------|--------|-------|---------|--------|
| <b>β1: Nbentha TC11080 12 peptides, 14 spectral counts, 35.6% sequence coverage</b> |        |        |        |       |         |        |
| R.TSTGMVYVANR.A   | 3.1733 | 0.3181 | 5.095  | 94.4% | 2       | 2+     |
| R.ASDKITQLTDNVYVCR.S  | 3.5302 | 0.1872 | 4.68   | 41.7% | 1       | 3+     |
| R.YFLHQHTIQLGQPATVK.V   | 4.7218 | 0.3395 | 7.215  | 59.4% | 1       | 2+     |
| R.YFLHQHTIQLGQPATVK.V   | 4.9673 | 0.3392 | 6.247  | 50.0% | 1       | 3+     |
| K.AMLQTGMIIGGWDK.Y  | 4.4574 | 0.2942 | 6.828  | 80.8% | 1       | 2+     |
| K.AM*LQTGMIIGGWDK.Y   | 2.9044 | 0.126  | 3.636  | 69.2% | 1       | 2+     |
| K.AM*LQTGM*IIGGWDK.Y  | 4.1316 | 0.2955 | 5.897  | 80.8% | 1       | 2+     |
| M.LQTGMIIGGWDK.Y  | 3.4043 | 0.3253 | 5.905  | 86.4% | 1       | 2+     |
| M.LQTGM*IIGGWDK.Y   | 4.0077 | 0.3047 | 6.249  | 86.4% | 1       | 2+     |
| M.LQTGM*IIGGWDKYEGGK.I  | 3.852  | 0.181  | 5.498  | 53.1% | 1       | 2+     |
| R.EGM*TQEAEKLVVTAVSLAIAR.D  | 3.7147 | 0.0842 | 4.464  | 32.1% | 1       | 3+     |
| K.LVVTAVSLAIAR.D  | 4.4324 | 0.2351 | 4.766  | 90.9% | 2       | 2+     |
| <b>β2: tobacco TC14992 3 peptides, 3 spectral counts, 19.4% sequence coverage</b>   |        |        |        |       |         |        |
| I.HYMAPNIYCCGAGTAADTEAVTDMVSSQLK.L  | 5.2152 | 0.3178 | 6.197  | 25.9% | 1       | 3+     |
| R.VVTALTLLK.S   | 2.756  | 0.0977 | 4.535  | 87.5% | 1       | 2+     |
| R.EIVQVIEGGDAM*EE.-   | 4.3334 | 0.3787 | 6.75   | 84.6% | 1       | 2+     |
| <b>β5: tobacco TC16354 23 peptides, 27 spectral counts, 52.4% sequence coverage</b> |        |        |        |       |         |        |
| K.GGVMVAADSR.A  | 2.169  | 0.1954 | 5.039  | 61.1% | 1       | 1+     |
| K.GGVMVAADSR.A  | 3.2103 | 0.2612 | 5.324  | 77.8% | 1       | 2+     |
| R.ASMGGYISSQSVK.K   | 4.2853 | 0.2594 | 5.313  | 79.2% | 2       | 2+     |
| R.ASM*GGYISSQSVK.K  | 3.9103 | 0.3064 | 6.33   | 83.3% | 2       | 2+     |
| R.GMGLSVGTMIAGWDEK.G  | 4.8122 | 0.3413 | 7.835  | 76.7% | 1       | 2+     |
| R.GMGLSVGTM*IAGWDEK.G   | 4.1475 | 0.3178 | 6.532  | 66.7% | 1       | 2+     |
| R.GM*GLSVGTMIAGWDEK.G   | 4.7004 | 0.2269 | 6.312  | 76.7% | 1       | 2+     |
| R.GM*GLSVGTM*IAGWDEK.G  | 4.2872 | 0.2864 | 5.697  | 73.3% | 1       | 2+     |
| R.GMGLSVGTMIAGWDEKGPGLYYVDSGGR.L  | 3.7003 | 0.2982 | 5.315  | 24.1% | 1       | 3+     |
| R.GMGLSVGTM*IAGWDEKGPGLYYVDSGGR.L   | 5.7723 | 0.4083 | 7.129  | 33.9% | 1       | 3+     |
| R.GM*GLSVGTMIAGWDEKGPGLYYVDSGGR.L   | 4.2721 | 0.2698 | 5.964  | 26.8% | 1       | 3+     |
| R.GM*GLSVGTM*IAGWDEKGPGLYYVDSGGR.L  | 5.7573 | 0.3491 | 7.041  | 35.7% | 1       | 3+     |
| K.GPGLYYVDSGGR.L  | 3.8079 | 0.3303 | 6.698  | 79.2% | 1       | 2+     |
| R.FSVGSGSPYAYGVLDSEGYR.F  | 3.4172 | 0.1948 | 4.889  | 38.9% | 1       | 3+     |
| R.FSVGSGSPYAYGVLDSEGYR.F  | 5.8757 | 0.4713 | 8.962  | 63.9% | 2       | 2+     |
| R.FDLSVEEAAELAR.R   | 4.4415 | 0.3781 | 7.56   | 79.2% | 1       | 2+     |
| R.AIYHATFR.D  | 1.997  | 0.0496 | 3.574  | 64.3% | 2       | 2+     |
| R.DGASGGVASVYHVGPNGWK.K   | 3.232  | 0.1516 | 4.445  | 55.6% | 1       | 2+     |
| R.DGASGGVASVYHVGPNGWK.K   | 3.249  | 0.1813 | 5.064  | 41.7% | 1       | 3+     |
| K.KLSGDDVGELHYNYPVELESVEQEMAEVPVA.-   | 3.6705 | 0.2459 | 5.256  | 25.0% | 1       | 3+     |
| K.KLSGDDVGELHYNYPVELESVEQEM*AEVPVA.-  | 3.0121 | 0.3297 | 5.612  | 22.6% | 1       | 3+     |
| K.LSGDDVGELHYNYPVELESVEQEMAEVPVA.-  | 3.9754 | 0.3128 | 5.795  | 23.3% | 1       | 3+     |
| K.LSGDDVGELHYNYPVELESVEQEM*AEVPVA.-   | 4.0321 | 0.3729 | 6.439  | 27.5% | 1       | 3+     |