

Article

# TAT-Modified $\omega$ -Conotoxin MVIIA for Crossing the Blood-Brain Barrier

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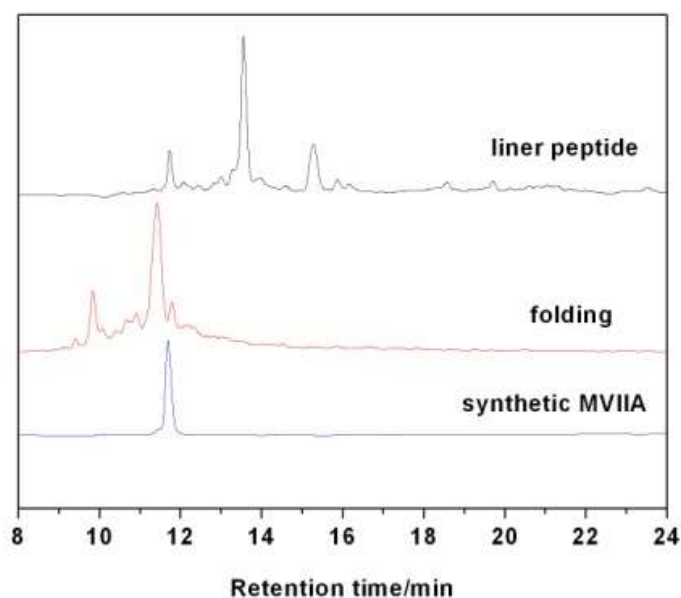
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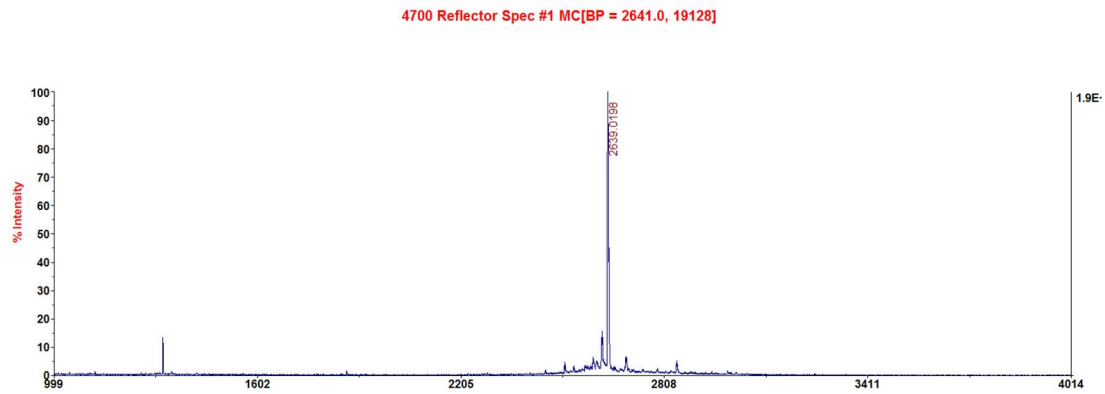
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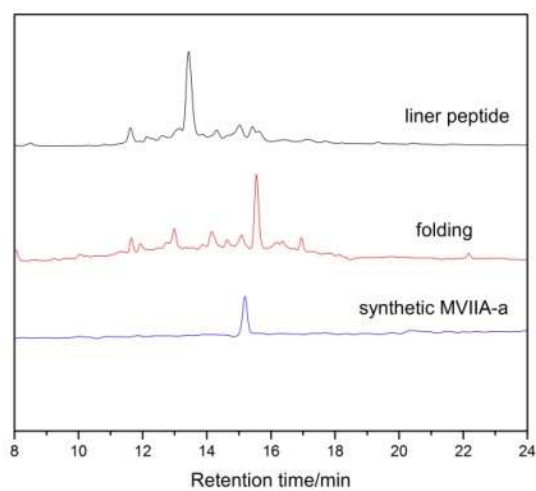
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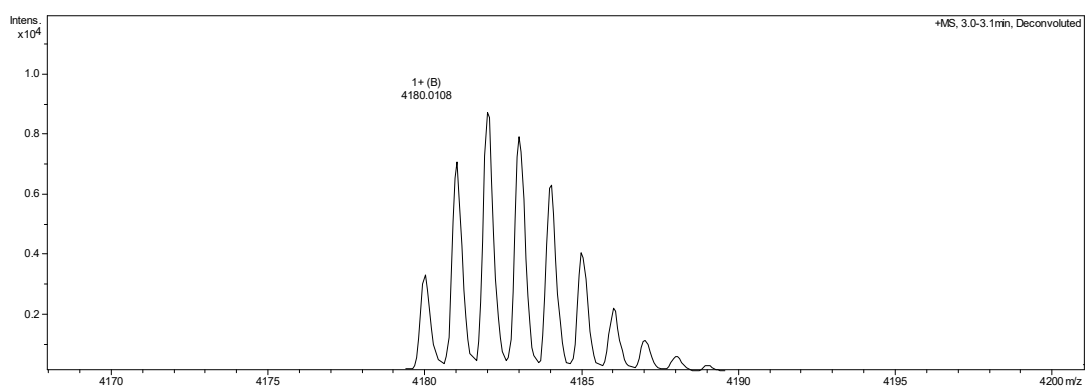
**Figure S1.** HPLC analyses of one-step folding products of linear MVIIA. Traces from top to bottom: ( a ) the linear peptide; ( b ) one-step oxidized products; ( c ) the purified product of MVIIA. Samples were applied to a Kromasil C18 column (5  $\mu$  m, 4.6 mm  $\times$  250 mm) and eluted with a linear gradient of 5–10% B for 0–1 min; 10–50% B (B is acetonitrile containing 0.1% TFA) for 1–25 min. Absorbance was monitored at 214 nm. The flow rate was 1.0 mL/min.



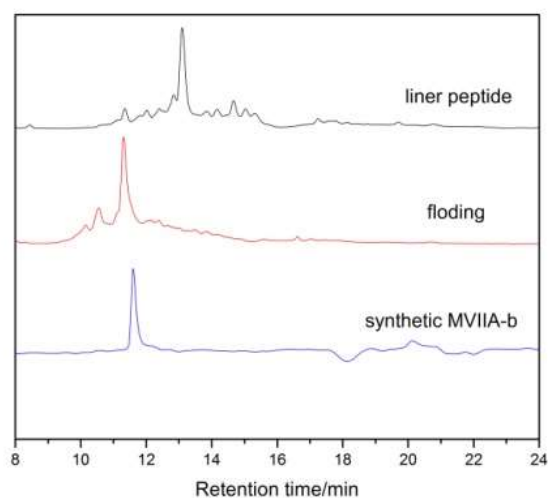
**Figure S2.** Electrospray ionization mass spectrometry (ESI-MS) data for MVIIA



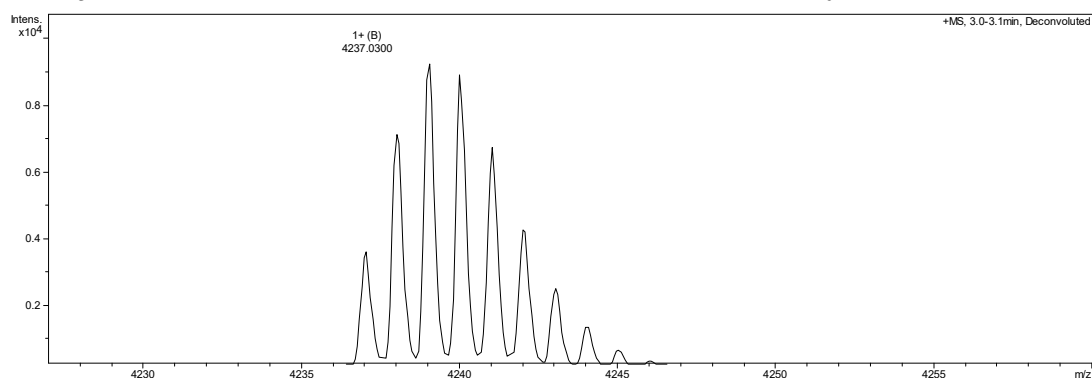
**Figure S3.** HPLC analyses of one-step folding products of linear MVIIA-a. Traces from top to bottom: ( a ) the linear peptide; ( b ) one-step oxidized products; ( c ) the purified product of MVIIA-a. Samples were applied to a Kromasil C18 column (5  $\mu$  m, 4.6 mm  $\times$  250 mm) and eluted with a linear gradient of 5–10% B for 0–1 min; 10–50% B (B is acetonitrile containing 0.1% TFA) for 1–25 min. Absorbance was monitored at 214 nm. The flow rate was 1.0 mL/min.



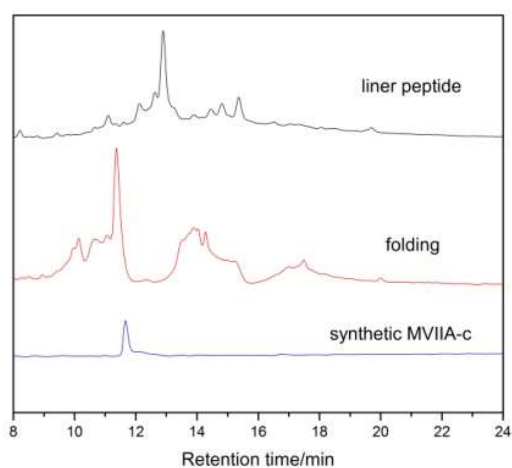
**Figure S4.** Electrospray ionization mass spectrometry (ESI-MS) data for MVIIA-a



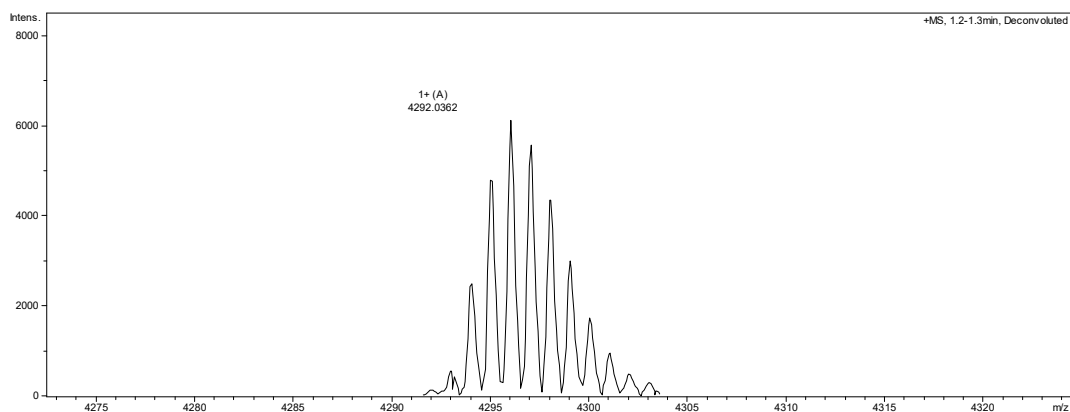
**Figure S5.** HPLC analyses of one-step folding products of linear MVIIA-b. Traces from top to bottom: ( a ) the linear peptide; ( b ) one-step oxidized products; ( c ) the purified product of MVIIA-b. Samples were applied to a Kromasil C18 column (5  $\mu$  m, 4.6 mm  $\times$  250 mm) and eluted with a linear gradient of 5–10% B for 0–1 min; 10–50% B (B is acetonitrile containing 0.1% TFA) for 1–25 min. Absorbance was monitored at 214 nm. The flow rate was 1.0 mL/min.



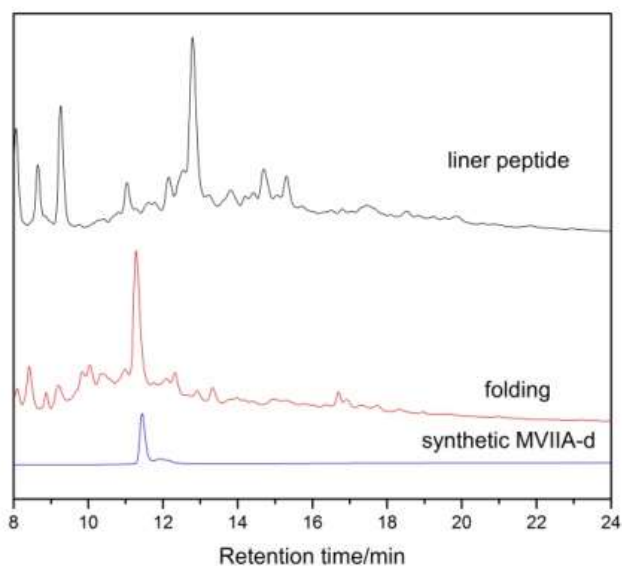
**Figure S6.** Electrospray ionization mass spectrometry (ESI-MS) data for MVIIA-b



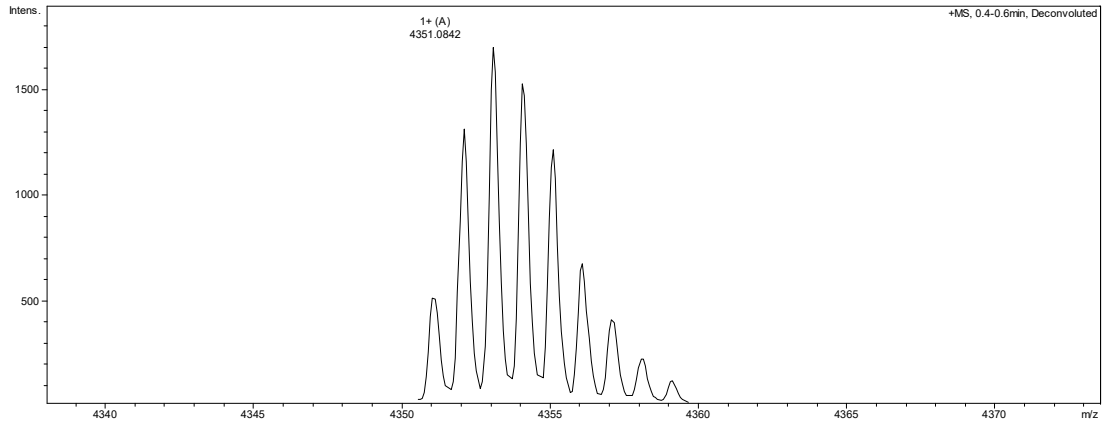
**Figure S7.** HPLC analyses of one-step folding products of linear MVIIA-c. Traces from top to bottom: ( a ) the linear peptide; ( b ) one-step oxidized products; ( c ) the purified product of MVIIA-c. Samples were applied to a Kromasil C18 column (5  $\mu$  m, 4.6 mm  $\times$  250 mm) and eluted with a linear gradient of 5–10% B for 0–1 min; 10–50% B (B is acetonitrile containing 0.1% TFA) for 1–25 min. Absorbance was monitored at 214 nm. The flow rate was 1.0 mL/min.



**Figure S8.** Electrospray ionization mass spectrometry (ESI-MS) data for MVIIA-c



**Figure S9.** HPLC analyses of one-step folding products of linear MVIIA-d. Traces from top to bottom: ( a ) the linear peptide; ( b ) one-step oxidized products; ( c ) the purified product of MVIIA-d. Samples were applied to a Kromasil C18 column (5  $\mu$  m, 4.6 mm  $\times$  250 mm) and eluted with a linear gradient of 5–10% B for 0–1 min; 10–50% B (B is acetonitrile containing 0.1% TFA) for 1–25 min. Absorbance was monitored at 214 nm. The flow rate was 1.0 mL/min.



**Figure S10.** Electrospray ionization mass spectrometry (ESI-MS) data for MVIIA-d