Electronic Supporting information

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A cool and high salt-tolerant ionic liquid matrix for preferential ionization of phosphopeptides by negative ion MALDI-MS

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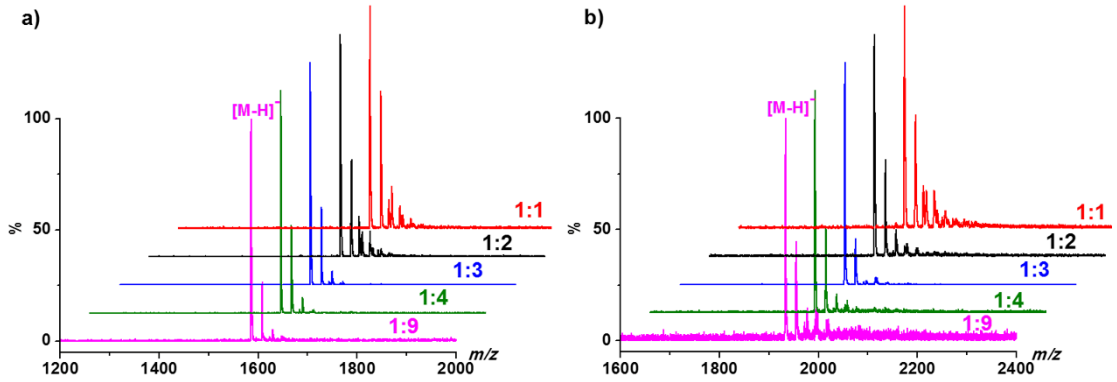

Fig. S1 MALDI-MS spectra of a) phosphopeptides I and b) phosphopeptides II using ILMs GnTHAP (n=1,2,3,4,9).

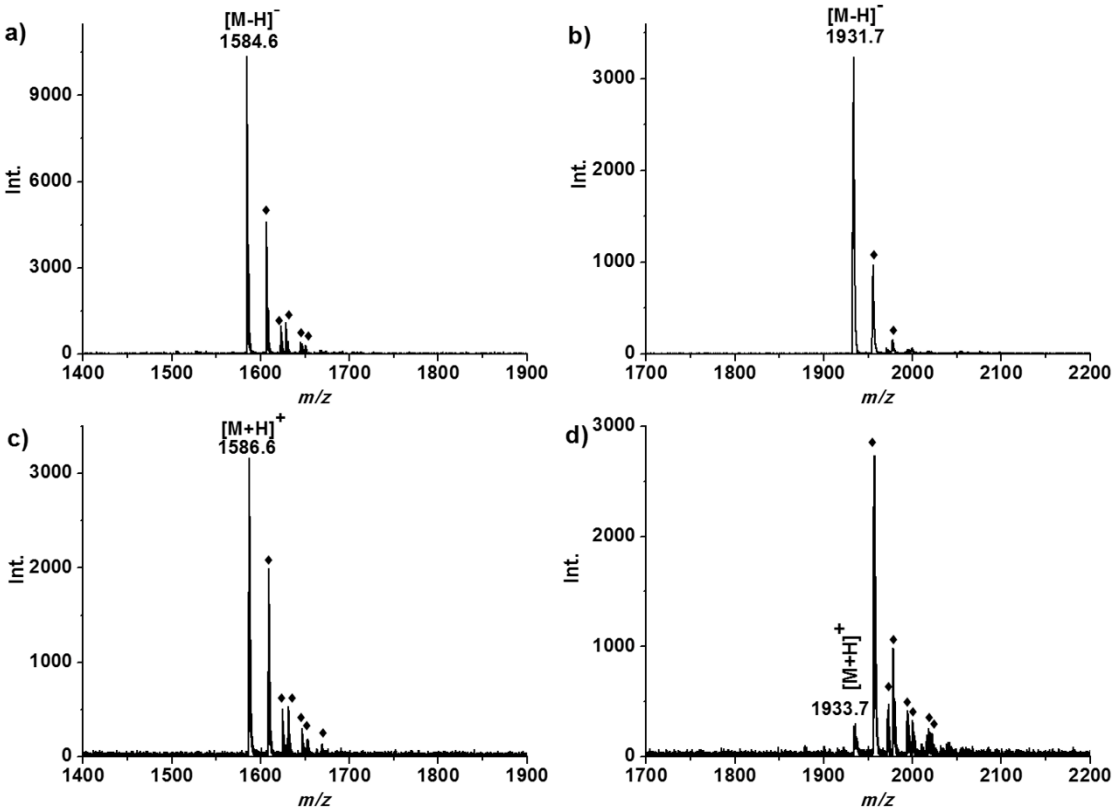

Fig. S2 MALDI-MS spectra of phosphopeptides I in a) negative ion mode c) positive ion mode and phosphopeptides II in b) negative ion mode d) positive ion mode. Rhombuses represent the alkalic-metal ion adducts.

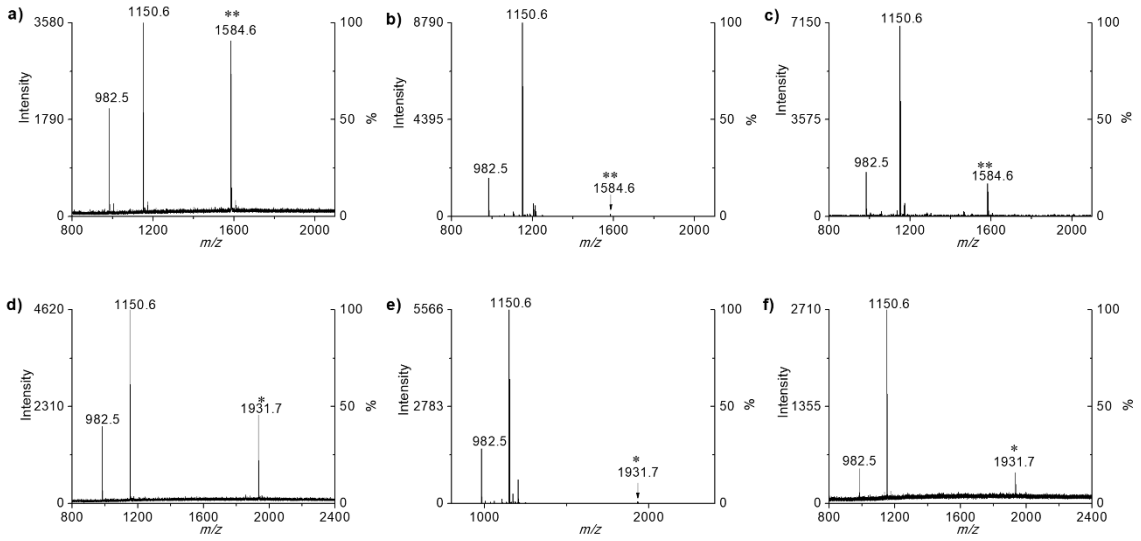

Fig. S3 Negative ion MALDI-MS spectra of (a, b, c)mixture of phosphopeptide I (0.5/3 mM), peptide V (2/3 mM) and peptide VI (2/3 mM); (d, e, f) mixture of phosphopeptide II, (0.5/3 mM), peptide V (2/3 mM) and peptide VI (2/3 mM) using G_3THAP/PA (a, d), 3-AQ/CHCA/ADP (b, e) and DHB/PA (c, f) as the matrices. The symbols (**) and (*) represent the diphosphorylated peptide I ion (*m/z* = 1584.6) and monophosphorylated peptide II ion (m/z = 1931.7), respectively. The peaks at *m/z* = 982.5 and *m/z* = 1150.6 correspond to nonphosphopeptides V and VI, respectively.