

Supplementary Information

Total chemical synthesis of the phosphorylated p62 UBA domain reveals that Ser⁴⁰⁷Pi but not Ser⁴⁰³Pi enhances ubiquitin binding

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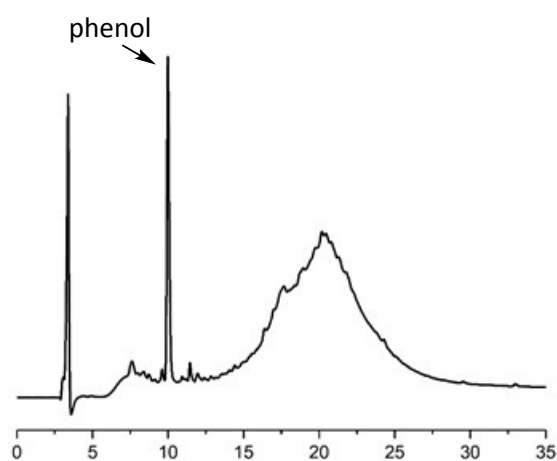


Figure S1 The crude peptide of UBA-2Pi synthesized in one step by Fmoc-SPPS was characterized by HPLC (214

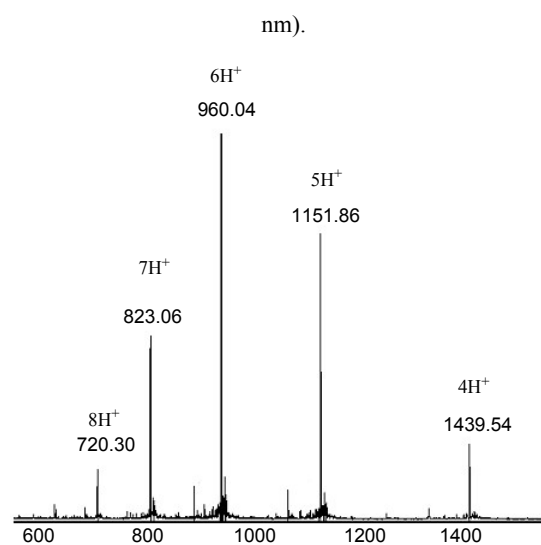


Figure S2 Analytical ESI-MS characterization of auxiliary intermediate of UBA-2pi **3'**. (Obs: 5754.42 Da, Calc:

5758.15 Da, average isotopes)

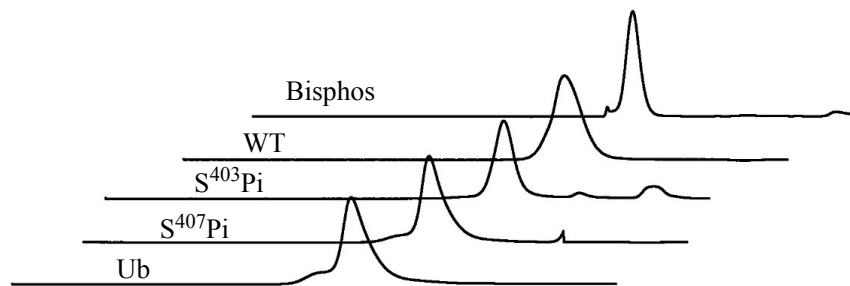


Figure S3 Size-exclusion chromatography characterization of the refold phosphorylated and wild-type UBA and mono-ubiquitin

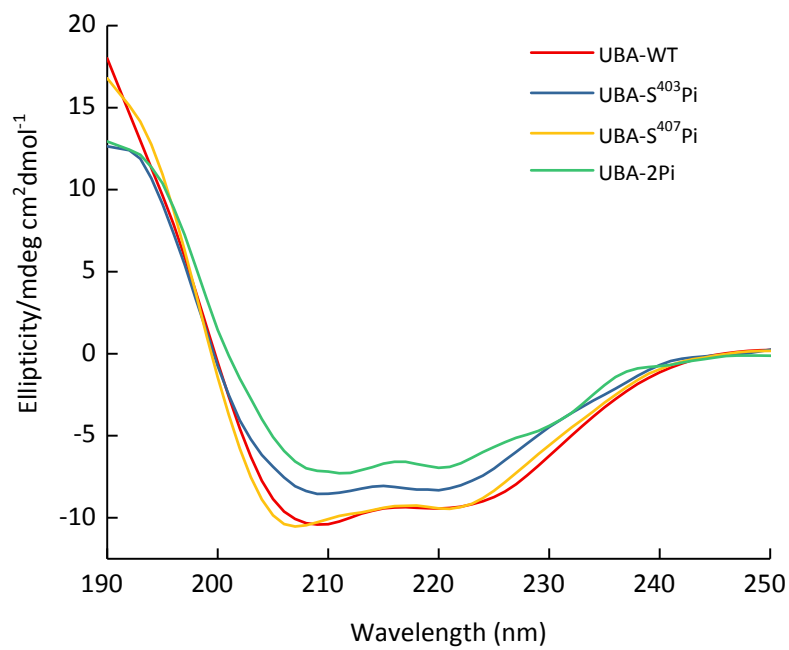


Figure S4 CD spectra of UBA-WT, UBA-S⁴⁰³Pi, UBA-S⁴⁰⁷Pi and UBA-2Pi, which showed characteristic absorptions at 208 nm and 226 nm.