

**Supporting Information S3.** List of 249 phosphotyrosine phosphorylation proteins, and none of proteins included has  $\geq 50\%$  pairwise sequence identity with any other. See the main text for further explanation.

>P11171

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>P05067

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>Q8IZP0

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>P42684

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>Q07912

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>P12814

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>P36896

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>Q13444

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>P55263

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>P07550

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>Q99490

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>Q9UM73

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>P10275

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>P04083

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>P63010

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>O00213

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>Q9H1A4

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>P08069

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>O15547

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>Q99572

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>O15350

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>P49023

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>P12004



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>Q15118

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>O15530

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>Q5VY43

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>P16284

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>P18669

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>P16234

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>P09619

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>O60331

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>P19174

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>Q12972

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>O43294

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>P19429

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>P29597

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