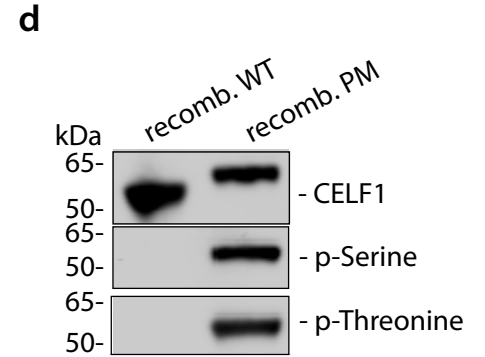
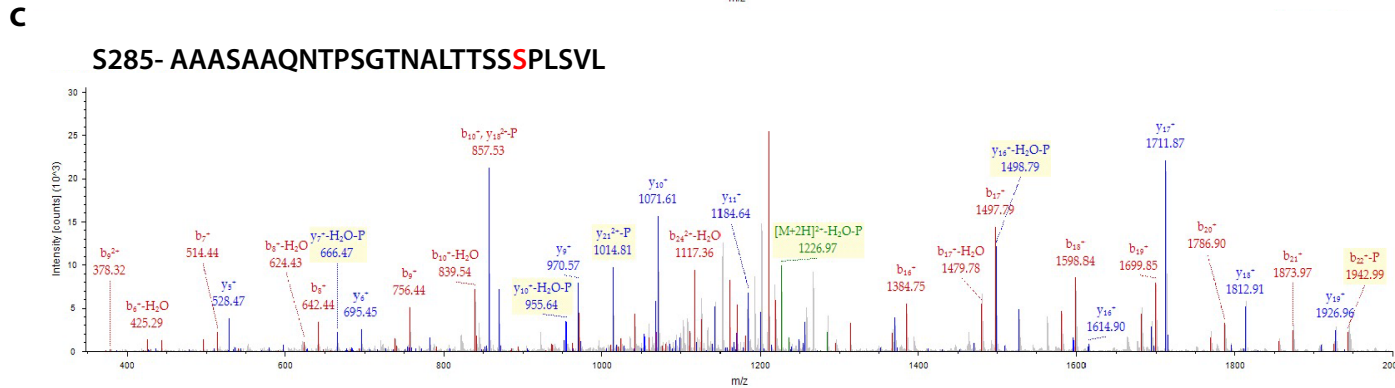
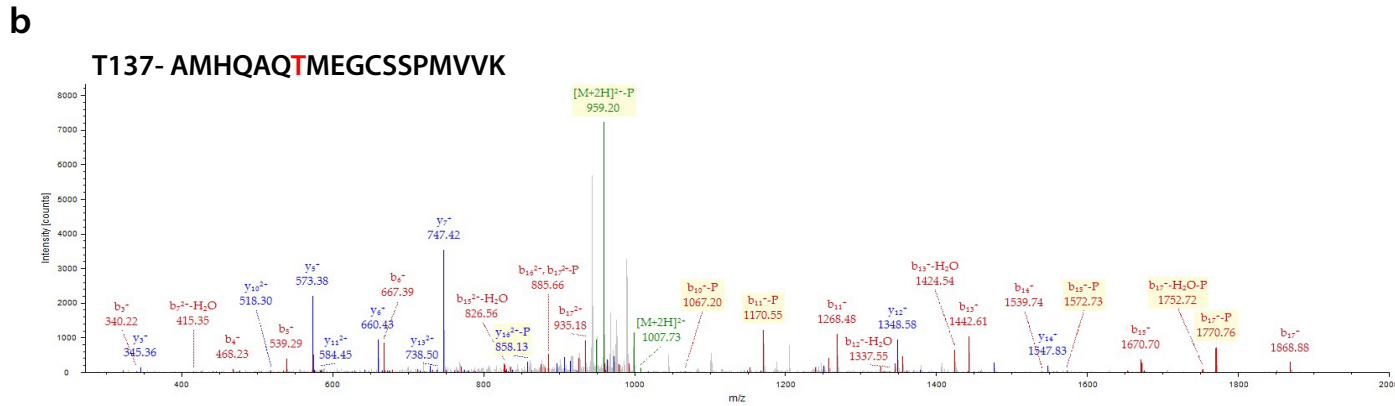


a
 MAAF**K**LDLPEMMVDHCSLNSSPV**S****K**KMNGTLDHPDQPDLD**A**I**K**MFVGGQVP**R**TWSE**K**DLRELFEQYGAVYEIN**V**L**R**
 D**R**SQNPPQ**S****K**GCCFVTFY**T****R**KAALEAQNALHNM**K**VLPGMHHPIQM**K**PADSE**K**NNAVED**R**KLFIGMIS**K**KCTENDIR
 VMFSSFGQIE**C**RIL**R**GPDGL**S****R**GCAFVTF**T****R**AMAQT**A**I**K**AMHQAQ**T**MEGCSSPM**V**V**K**FAD**T**Q**K**D**K**E**Q****K**R**M**A**Q****Q**
LQ**Q**M**Q****Q****J**SAASVWGNLAGLNTLGPQYLALYLQLLQQTASSGNLNTLSSLHPMGGLNAMQLQNLAAALAAAASAA**Q**
NTPSGTNAL**T****S****S****S****P**L**S****V**L**T****S****S****A**G**S****S****P****S****S****S****S****N**S**V**NPIASLGALQTLAGATAGLNVGSLAGMAALNGGLGSSGLSNGT**G****S**
TMEAL**T**QAYSGIQ**Q**YAAAALPTLYNQ**L**L**T**Q**S**IGAAG**S****Q****K**EGPEGANLFYHLPQEFGDQDLLQMFM**P**FGNV**S**A**K**
 VFID**K**QTNLS**K**CFGFVSYDNPVSAQA**I**QSMNGFQIGM**K**R**L****K**V**Q**L**K**R**S****K**N**D**S**K**P**Y**



Supplementary figure 1: Mass spectrometric analysis of CELF1 and detection of phosphomimetic substitutions by immunoblot. a. CELF1 peptide sequence with lysine (K) and arginine (R) residues in red. Highlighted residues mark CELF1 region with lack of K and R residues for digestion, with SP-repeat dense region in bold. **b, c.** Representative spectra for two of the seven phosphorylation sites identified via mass-spectrometry, the identified site indicated in red in the corresponding peptide sequence above the graphs. **d.** Immunoblot of recombinant, bacterially expressed, purified CELF1 wild-type and phosphomimetic mutant proteins probed with anti-phosphoserine and anti-phosphothreonine antibodies as indicated. CELF1 serves as loading control. Data representative of a minimum of three replicates.