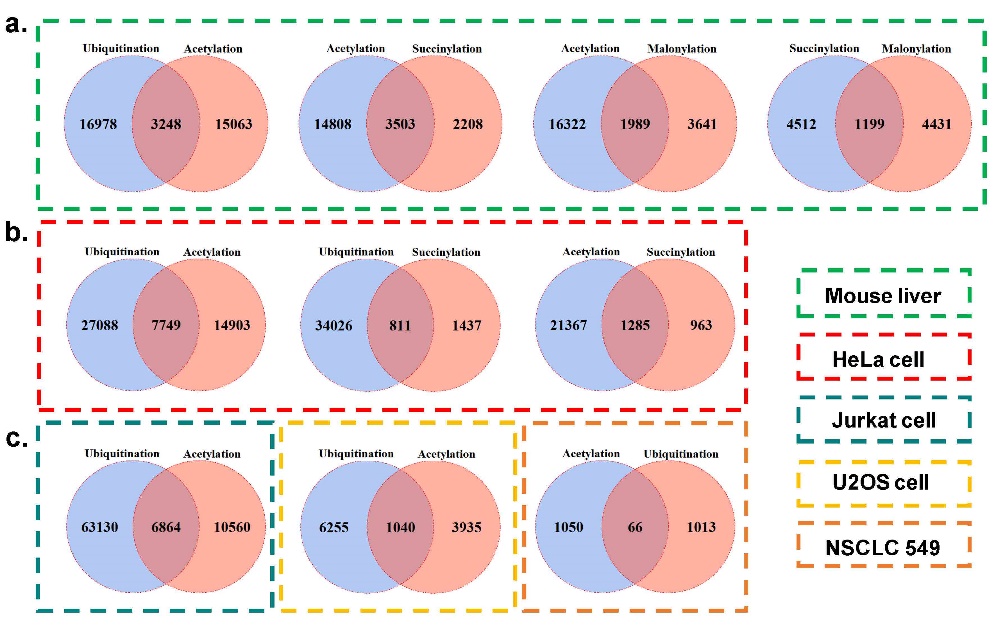


**Fig. S1.** The sequence motifs of different types of PLMs on reproducible modification events.

Totally, eight types of PLMs were found to process the most significantly over-represented sequence motifs, including four types of acylations, two types of Ub-UbLs and two types of other PLMs. Among them, the *P*-value of propionylation and glycation was set as 0.0001 due to the data limitation, while other six types of PLMs were analyzed with a *P*-value < 0.00001.



**Fig. S2.** The Venn diagram for the number of co-occurrences of two types of PLMs in different tissues or cell lines.

**A**: The number of co-occurrences of two types of PLMs in mouse liver. **B**: The number of co-occurrences of two types of PLMs in HeLa cell. **C**: The number of co-occurrences of two types of PLMs in other cell lines. NSCLC 549, non-small cell lung cancer 549 cell line