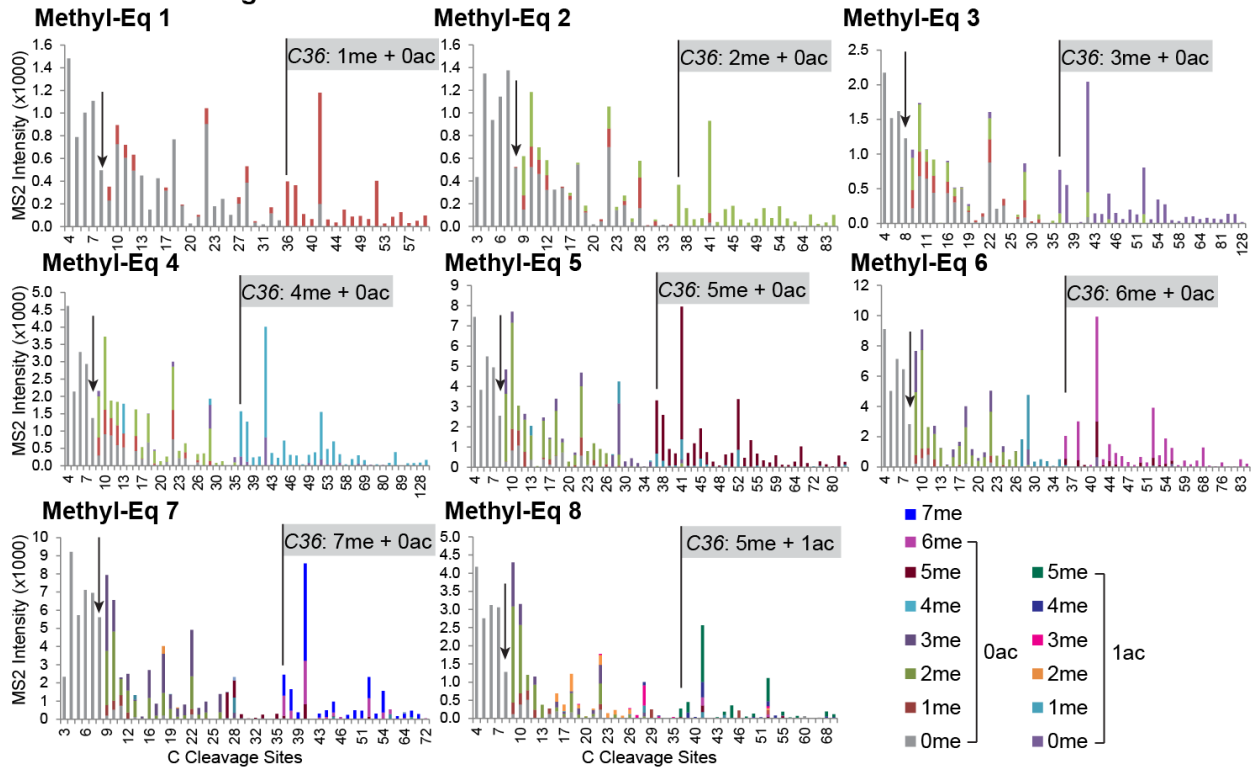
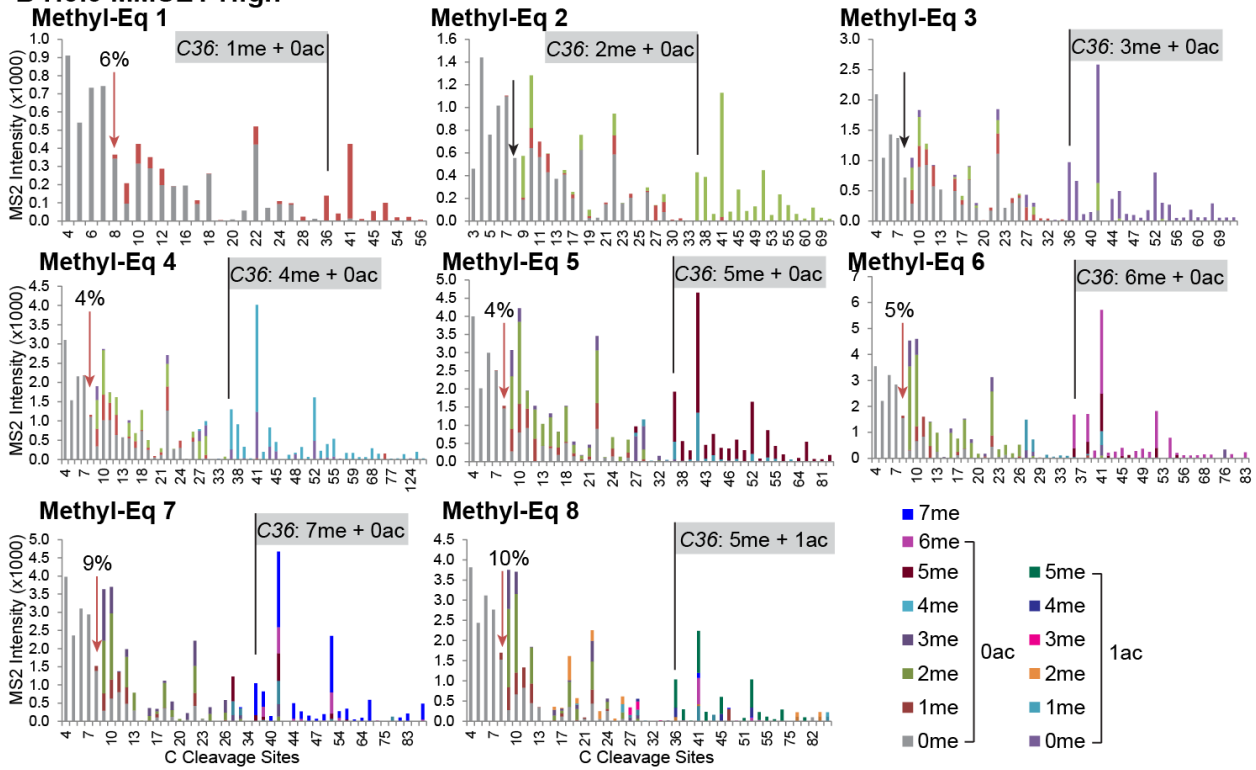


### A H3.1 MMSET-High



### B H3.3 MMSET-High



**Fig S4.** ETD fragment ion graphs of Methyl Equivalents from 1 to 8 in H3.1 (A) and H3.3 (B) of MMSET-High cells. Most modification pattern (represented by color patterns) changes occurred in  $c_9 - c_{36}$  region. One acetylation was observed in Methyl-Eq 8. Black arrows pointing to  $c_8$  ions indicate no modification and red arrows represent one methyl group in  $c_8$  ion.