

FIG. S3.

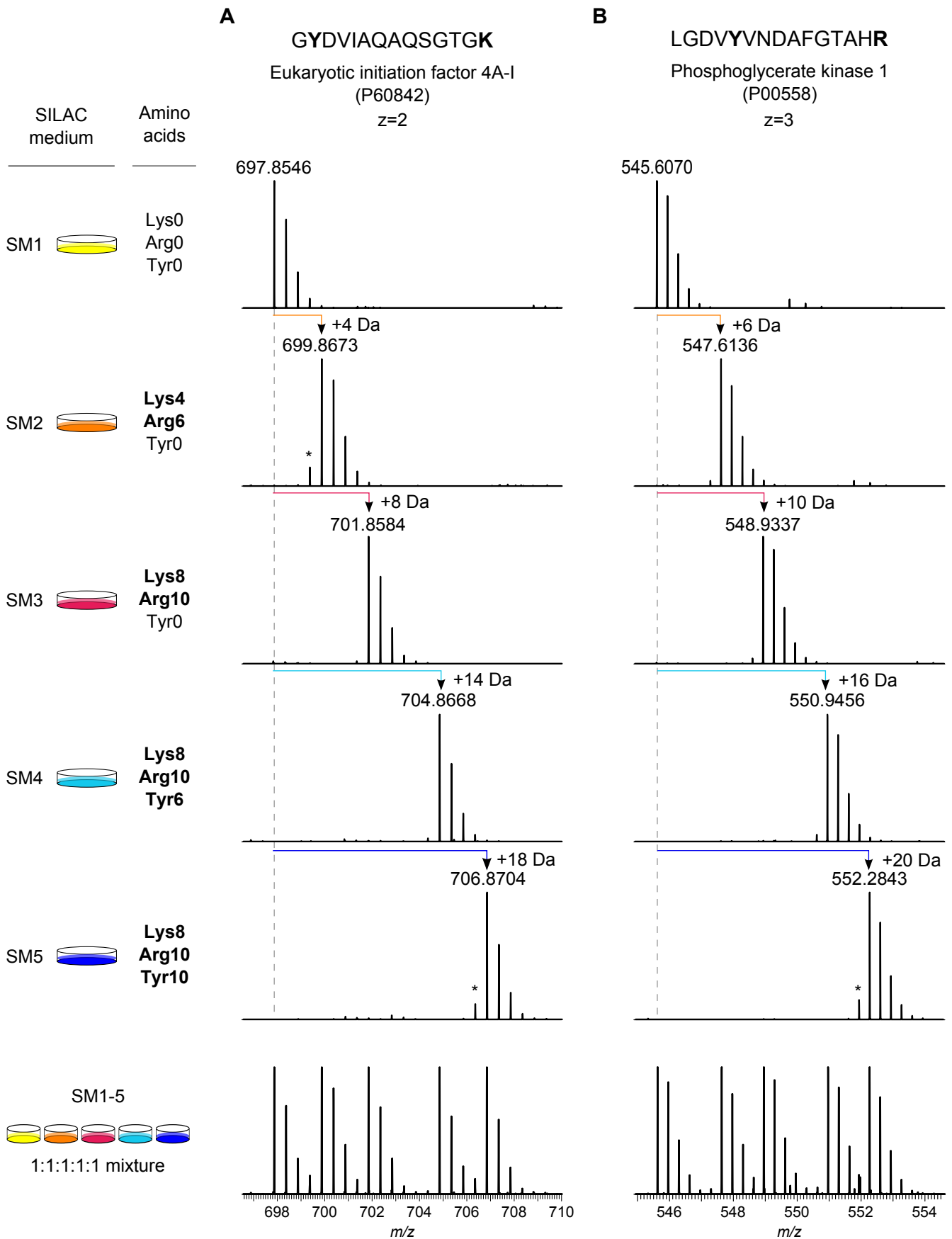


Fig. S3. **Representative  $m/z$  mass shifts for tyrosine containing tryptic peptides and SILAC quintuplets.**

**A.** Doubly charged ( $z=2$ ) peptide GYDVIAQAQSGTGK from Eukaryotic initiation factor 4A-I containing a C-terminal Lys translating in mass shifts of 4, 8, 14, and 18 Da for SM1-5, respectively. **B.** Triply charged ( $z=3$ ) peptide LGDVYVNDAFGTAHR from Phosphoglycerate kinase 1 containing a C-terminal Arg translating in a mass shift of 6, 10, 16, and 20 Da for SM1-5, respectively. Asterisks denote satellite peaks originating from light atom impurities in Lys4, and Tyr10.