% Total peptides (per fraction)

In-solution charge
Supplementary Figure S1. Peptide in-solution charge distributions of peptides (as % of total peptides in each fraction) across 16 SCX fractions with compositions as indicated. Six distributions could be defined (each contained within a red outline), with each designated by the highest composition representing this charge; FT, MeCN, 10 % KCl, 25 % KCl, 40 % KCl, and 100 % KCl.
**Supplementary Figure S2.** Performic oxidised myocardial peptides fractionating into 10% KCl SCX fraction. HILIC fractionation of peptides (a) reveals retention of Cys-SO$_3$H peptides, however, basic unmodified peptides are retained equally as well resulting in lowered enrichment efficiency. (b) Cys-SO$_3$H peptides fractionating into the 10 % KCl fraction contain primarily His or additional K/R sites (from missed cleavages or followed by P), with smaller numbers (>10%) containing combinations of these or not containing these sites.
Figure S3. Functional clustering based on GO terms. Fold over-representation is indicated to a genome background (R. norvegicus), with terms ranked within each cluster (red box) by modified Fishers Extract (EASE). Each cluster is given an overall score and general name.