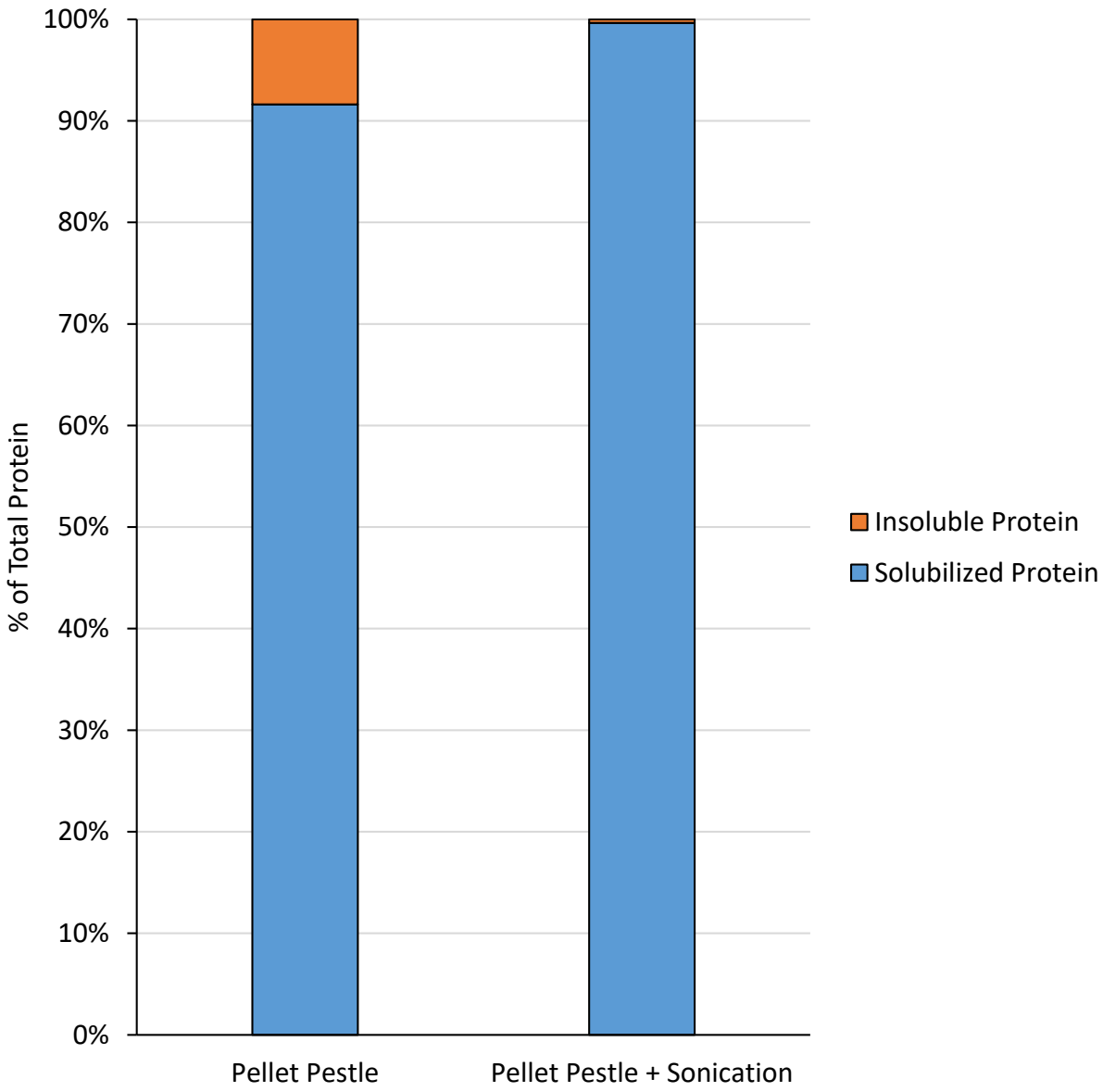
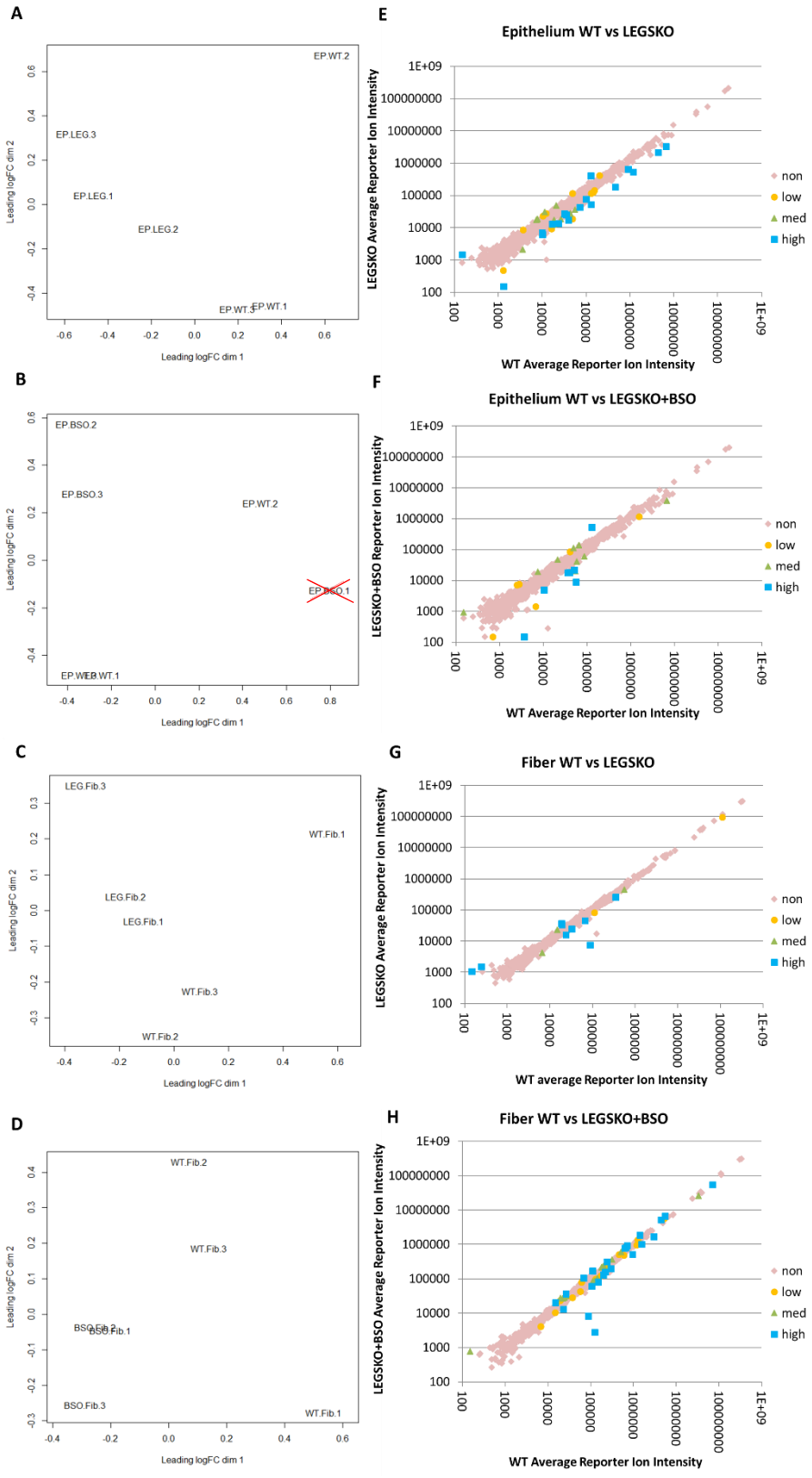
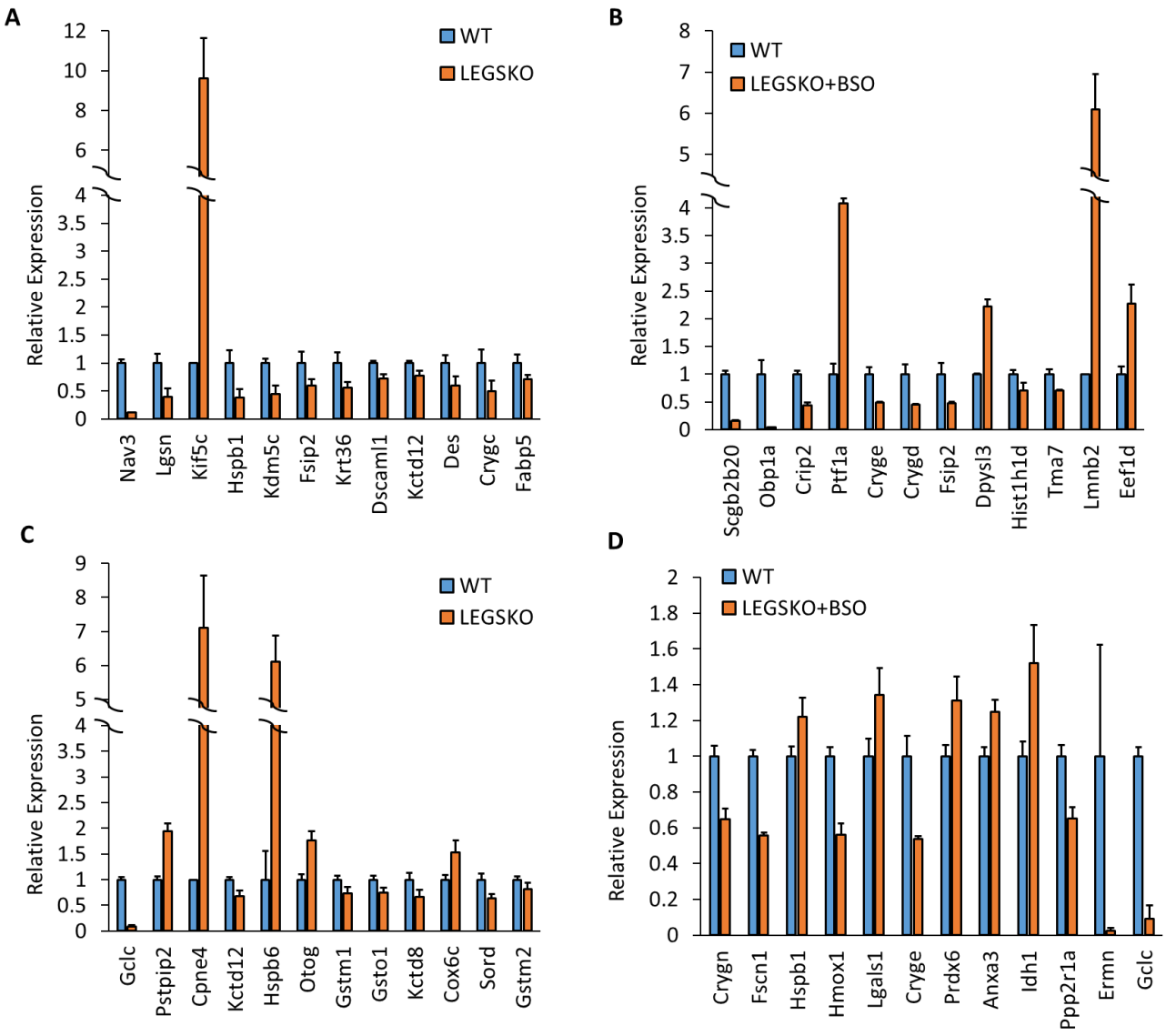


Supplemental Figure 1. Comparison of lens protein solubilization methods. Lens homogenates were spun down at 37,000xg for 10 minutes to precipitate insoluble proteins and the supernatant was saved. Pellets were either immediately subjected to hydrolysis or were resuspended in potassium phosphate buffer and sonicated for 30 rounds of 5 sec bursts at 40% power and then spun down and sonicated for a second time. Supernatants were saved, pooled, and analyzed as solubilized protein Samples with or without sonication were hydrolyzed in 1 ml 6 N HCl at 110^{o}C for 16 hours. Solution was evaporated using a speedvac at medium setting for 1.5 hours and the dried samples were resuspended in 500 ul water. Samples were diluted 1:10 in water and subjected to a ninhydrin assay (Sigma-Aldrich, St. Louis, MO) following the manufacturer's instructions, with a standard curve of leucine for quantitation of total protein content. Without the sonication step, nearly 10% of protein remained in the insoluble fraction but sonication was sufficient to recover >99.6% of total protein. Values are means. n = 3.



Supplemental Figure 2. Statistical analysis of lens tissue relative quantitation. (A-D) EdgeR-derived multidimensional plots showing clustering of samples based on similarity of proteomic profiles. (E-H) Scatterplots of protein expression changes displaying non (FDR>0.1), low (FDR=0.1-0.05), medium (FDR=0.05-0.01), and high (FDR<0.01) candidate proteins. Comparisons shown are WT vs LEGSKO epithelium (A, E), WT vs BSO-treated LEGSKO epithelium (B, F), WT vs LEGSKO fiber cells (C, G), and WT vs BSO-treated LEGSKO fiber cells (D, H).



Supplemental Figure 3. Top 12 Protein Expression Changes for Each Comparison. (A) WT vs LEGSKO epithelia. (B) WT vs BSO-treated LEGSKO epithelia. (C) WT vs LEGSKO fiber cells. (D) WT vs BSO-treated LEGSKO fiber cells. Rankings based on lowest FDR values. Bars are means ± SD. BSO-treated LEGSKO epithelia n = 2, all others n = 3.