



SUPPLEMENTARY FIG. S4. Identification of FOXO3 cysteine-disulfide-dependent binding partners. (A) Schematic representation of the setup of the screen. HEK293T cells overexpressing different Flag-tagged FOXO3 cysteine mutants were incubated with H₂O₂ (200 μM) before lysis to induce disulfide formation. Immunoprecipitation (IP) was performed using anti-Flag beads in a buffer containing an excess of the Cys-directed alkylator iodoacetamide (to prevent postlysis oxidation and to inactivate Thioredoxin) and stringently washed. Cysteine-disulfide-dependent binding partners were identified by two different MS/MS-based approaches as depicted by (1) and (2) in the figure. (B) Actual result of the experiment depicted in (A). The upper panel shows the nonreduced IPs after sodium dodecyl sulfate–polyacrylamide gel electrophoresis (SDS-PAGE) separation and simply blue staining (90% of the sample), the middle panel shows a Western blot of the other 10% of the nonreduced sample stained for Flag-FOXO3. Both show that FOXO3 displays several cysteine-dependent (and specific) apparent mass shifts, suggesting the existence of FOXO3-containing cysteine-disulfide-mediated complexes. The clearest examples are marked by a #. Bands marked with asterisk represent (nonreduced) antibody chains.