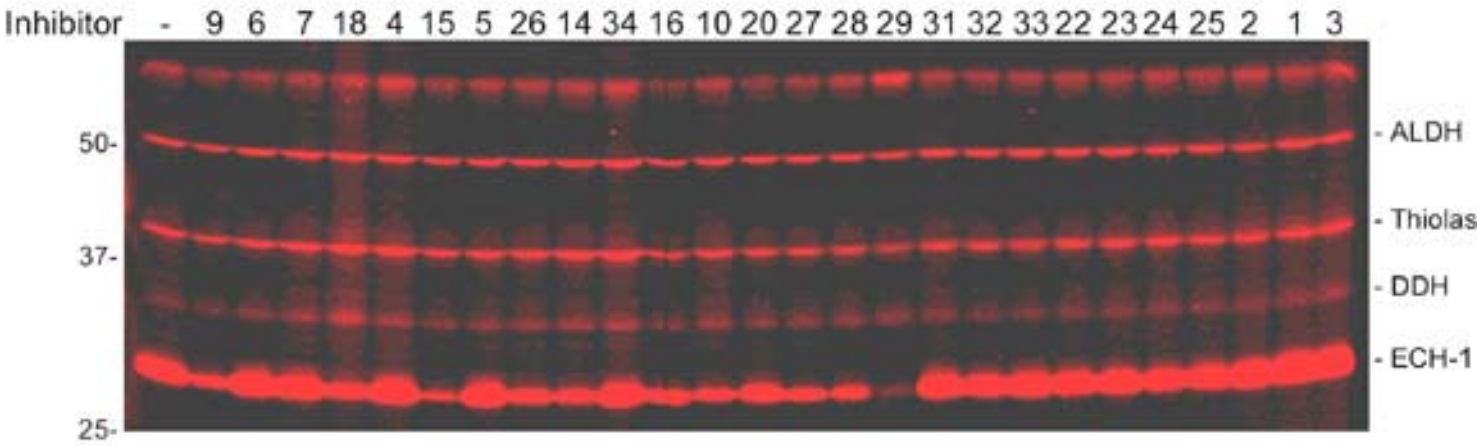

Supplementary Fig. 1 Competitive proteomic profiling of enzymes labeled by a phenyl sulfonate ester ABPP probe (inhibitors at 10 μM and sulfonate probe at 5 μM; reaction time 30 min). In the heart soluble proteome, four mechanistically distinct enzymes are labeled by this sulfonate ester probe in an active site-directed manner (ref. 21): aldehyde dehydrogenase-1 (ALDH), acetyl CoA acetyltransferase (thiolase), dihydrodiol dehydrogenase (DDH), and enoyl CoA hydratase 1 (ECH-1). Of these enzymes, ECH-1 was sensitive to a subset of trifluoromethyl ketones of the inhibitor library (e.g., **15**, **29**; see Supplementary Table 3 for IC_{50} values). The sulfonate labeling of the other enzymes was not affected by members of the inhibitor library (IC_{50} values > 100 μM).