

**Figure S2. Epistasis enrichment for a non-candidate pathway selected set.** The graph displays number of epistasis tests (y-axis) in the ASD cases (dark gray, circle) and ASD pseudo-controls (light gray, triangle) with  $P$ -value below thresholds (x-axis, left to right):  $P < 2.9 \times 10^{-9}$ ,  $1.0 \times 10^{-8}$ ,  $P < 1.0 \times 10^{-7}$ ,  $P < 1.0 \times 10^{-6}$ ,  $P < 1.0 \times 10^{-5}$ , and  $P < 1.0 \times 10^{-4}$ . The 2x2 chi-square test odds ratio (OR) is written for the epistasis results meeting nominal significance ( $P < 10^{-6}$ ).

