

**Figure S13:** Graphs showing  $\log_{10}(1-AUC)$  (area under ROC curve) (y-axis) versus  $\log_{10}(\text{number of positives})$  (x-axis) for Hnf4a.  $\log_{10}(1-AUC)$  is shown to highlight differences between the methods, all of which have an AUC near 1. Graphs were generated using Array 1 as training and Array 2 as test data (panels **A**,**C**; *this and next page*), and separately using Array 2 as training and Array 1 as test data (panels **B**,**D**; *this and next page*). The solid black line ("Full Lasso model") indicates performance of the multiple motif model; all other lines indicate performance of various other individual motifs identified by other motif finding algorithms (see **Materials and Methods**). For clarity, only data for the Lasso-selected PWMs are shown in panels **A**,**B**; plots showing data from all motifs considered are shown in panels **C**,**D**.



