



Supplementary Figure 5. Motif and tissue expression analysis of miR-hes-3/miR-373 transfection. Houbaviy et al¹ found a cluster of ES cell specific miRNAs in mouse, and predicted a related cluster in human. We transfected duplex RNA based on the predicted human miRNA hes-3 (sense/antisense, 5' to 3' orientation): AAGUGCUUCGAUUUUGGGGUGUC/CACCCCAAAAUCGAAGCACAUC. Recently, the sequence GAAGUGCUUCGAUUUUGGGGUGU was cloned from human embryonic stem cells². a) Weight matrix found by MEME. 72% of transcript 3' UTRs had an AGCACU. The set of 65 downregulated genes is listed in Supplementary Table 4. b) Tissue gene expression analysis as in Figure 1. The dotted line represents a Bonferroni correction for the 46 independent tests so as to give a p-value of 0.05.

1. Houbaviy, H. B., Murray, M. F. & Sharp, P. A. Embryonic stem cell-specific MicroRNAs. *Dev Cell* **5**, 351-8 (2003).
2. Suh, M. R. et al. Human embryonic stem cells express a unique set of microRNAs. *Dev Biol* **270**, 488-98 (2004).