processing, and incubated at 30 °C for 20 min. Complexes were resolved by 4% native PAGE at 4 °C.

siRNAs and northern blot analysis. The sequences of the siRNAs used in this study are: Dicer-A, 5′-UUUGUUGCGAGGCUGAUUCdTdT-3′; Dicer-B, 5′-UCUAUUAGCACCUUGAUGUdTdT-3′; TRBP-A, 5′-GCUGCCUAGUAUAGAG CAAdTdT-3′; TRBP-B, 5′-UCUACGAAAUUCAGUAGGAdTdT-3′; luciferase, 5′-UCGAAGUAUUCCGCGUACGdTdT-3′; TFII-I, 5′-UGUGGGGAAGCUC UUGGCCdTdT-3′. Transfection of HeLa 293 cells was performed with Lipofectamine 2000 (Invitrogen), as described. To examine the effect of siRNA on target gene expression, total RNA and complementary DNA synthesis was prepared 48–72 h after transfection, as described[1]. Primer sequences for RT–PCRs in Fig. 4a are: Dicer, 5′-CATGGATAGTGGGATGTCAC-3′ and 5′-CTACTTCCA-CAGTGACTCTG-3′; TRBP, 5′-GGGCTGCCTAGTATAGAGC-3′ and 5′-CCCTGACCAGTGCAGCTGGTG-3′; β-actin, 5′-AAAGACCTGTACGCC AACAC-3′ and 5′-GTCATACTCCTGCTTGCTGAT-3′. For northern blot analysis, total RNA (5–10 μg of each sample, isolated using TRIzol reagent) was resolved on 15% denaturing polyacrylamide gel and electrotransferred onto Hybond N + nylon membranes (Amersham). Hybridization with specific [γ-^{32}P]ATP end-labelled DNA oligonucleotides was carried out as described previously[9].

Luciferase assay. Luciferase assays were performed as described[10] with the following modification: HeLa cells were first co-transfected with firefly and *Renilla* luciferase reporter gene expression plasmids. A second transfection of siRNA against TRBP, Dicer or TFII-I together with siRNA against firefly luciferase was performed.

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