Table S1. Small RNA datasets used in this study.

Dataset number used in text and figures	GEO accession	Descriptions	Number of unique sequences	Platform	Reference
Human datasets					
h1	GSM541796	Undifferentiated H1 hESC	18227	454	(Bar et al. 2008)
h2	GSM541797	Differentiated H1 hESC	16096	454	(Bar et al. 2008)
h3	GSM379266	Primary cultures of normal ovarian surface epithelium (HOSE)	10544	454	(Wyman et al. 2009)
h4	GSM379265	Endometrioid ovarian cancer tissue	13134	454	(Wyman et al. 2009)
h5	GSM379267	Clear cell ovarian cancer tissue	37792	454	(Wyman et al. 2009)
h6	GSM397268	Serous ovarian cancer tissue	26849	454	(Wyman et al. 2009)
h7	to be submitted	Prostate epithelial cells (cell culture)	4721	454	
h8	to be submitted	Prostate stromal cells (cell culture)	4307	454	
h9	to be submitted	Normal prostate tissue	312508	Illumina	(Pomerantz et al. 2009)
h10	GSM410826	Synthetic miRNAs	724091	Illumina	(Linsen et al. 2009)
Mouse datasets					
m1	GSM361394	CGNP_P6_wt_rep1	15232	Illumina	(Uziel et al. 2009)
m1	GSM361395	CGNP_P6_wt_rep2	12528	Illumina	(Uziel et al. 2009)
m1	GSM361396	CGNP_P6_wt_rep3	13484	Illumina	(Uziel et al. 2009)
m1	GSM361397	CGNP_P6_wt_rep4	13341	Illumina	(Uziel et al. 2009)
m2	GSM361398	CGNP_P6_p53--_Ink4c--_rep1	21343	Illumina	(Uziel et al. 2009)
m2	GSM361399	CGNP_P6_p53--_Ink4c--_rep2	22334	Illumina	(Uziel et al. 2009)
m2	GSM361400	CGNP_P6_p53--_Ink4c--_rep3	16520	Illumina	(Uziel et al. 2009)
m2	GSM361401	CGNP_P6_p53--_Ink4c--_rep4	13926	Illumina	(Uziel et al. 2009)
m2	GSM361402	CGNP_P6_p53--_Ink4c--_rep5	12413	Illumina	(Uziel et al. 2009)
m3	GSM361403	CGNP_P6_Ptc+-_Ink4c--_rep1	22244	Illumina	(Uziel et al. 2009)
m3	GSM361404	CGNP_P6_Ptc+-_Ink4c--_rep2	29684	Illumina	(Uziel et al. 2009)
m3	GSM361405	CGNP_P6_Ptc+-_Ink4c--_rep3	14035	Illumina	(Uziel et al. 2009)
m3	GSM361406	CGNP_P6_Ptc+-_Ink4c--_rep4	44526	Illumina	(Uziel et al. 2009)
m3	GSM361407	CGNP_P6_Ptc+-_Ink4c--_rep5	14655	Illumina	(Uziel et al. 2009)

m4	GSM361408	WholeCerebellum_P6_wt_rep1	10101	Illumina	(Uziel et al. 2009)
m4	GSM361409	WholeCerebellum_P6_wt_rep2	9634	Illumina	(Uziel et al. 2009)
m4	GSM361410	WholeCerebellum_P6_wt_rep3	7539	Illumina	(Uziel et al. 2009)
m4	GSM361411	WholeCerebellum_P6_wt_rep4	10464	Illumina	(Uziel et al. 2009)
m5	GSM361412	WholeCerebellum_P6_p53--_Ink4c--_rep1	15337	Illumina	(Uziel et al. 2009)
m5	GSM361413	WholeCerebellum_P6_p53--_Ink4c--_rep2	26525	Illumina	(Uziel et al. 2009)
m5	GSM361414	WholeCerebellum_P6_p53--_Ink4c--_rep3	7327	Illumina	(Uziel et al. 2009)
m5	GSM361415	WholeCerebellum_P6_p53--_Ink4c--_rep4	6860	Illumina	(Uziel et al. 2009)
m5	GSM361416	WholeCerebellum_P6_p53--_Ink4c--_rep5	6304	Illumina	(Uziel et al. 2009)
m6	GSM361417	WholeCerebellum_P6_Ptc+-_Ink4c--_rep1	27623	Illumina	(Uziel et al. 2009)
m6	GSM361418	WholeCerebellum_P6_Ptc+-_Ink4c--_rep2	10751	Illumina	(Uziel et al. 2009)
m6	GSM361419	WholeCerebellum_P6_Ptc+-_Ink4c--_rep3	7952	Illumina	(Uziel et al. 2009)
m6	GSM361420	WholeCerebellum_P6_Ptc+-_Ink4c--_rep4	9671	Illumina	(Uziel et al. 2009)
m6	GSM361421	WholeCerebellum_P6_Ptc+-_Ink4c--_rep5	11191	Illumina	(Uziel et al. 2009)
m7	GSM361422	WholeCerebellum_1month_wt_rep1	7089	Illumina	(Uziel et al. 2009)
m7	GSM361423	WholeCerebellum_1month_wt_rep2	8906	Illumina	(Uziel et al. 2009)
m7	GSM361424	WholeCerebellum_1month_wt_rep3	11999	Illumina	(Uziel et al. 2009)
m8	GSM361425	WholeCerebellum_1month_p53--_Ink4c--_rep1	8859	Illumina	(Uziel et al. 2009)
m8	GSM361426	WholeCerebellum_1month_p53--_Ink4c--_rep2	6963	Illumina	(Uziel et al. 2009)
m8	GSM361427	WholeCerebellum_1month_p53--_Ink4c--_rep3	13810	Illumina	(Uziel et al. 2009)
m8	GSM361428	WholeCerebellum_1month_p53--_Ink4c--_rep4	24332	Illumina	(Uziel et al. 2009)
m9	GSM361429	WholeCerebellum_1month_Ptc+-_Ink4c--_rep1	27928	Illumina	(Uziel et al. 2009)
m9	GSM361430	WholeCerebellum_1month_Ptc+-_Ink4c--_rep2	38077	Illumina	(Uziel et al. 2009)
m10	GSM361431	MBcells_Ptc+-_Ink4c--_rep1	12449	Illumina	(Uziel et al. 2009)
m10	GSM361432	MBcells_Ptc+-_Ink4c--_rep2	8271	Illumina	(Uziel et al. 2009)
m10	GSM361433	MBcells_Ptc+-_Ink4c--_rep3	7962	Illumina	(Uziel et al. 2009)
m10	GSM361434	MBcells_Ptc+-_Ink4c--_rep4	20559	Illumina	(Uziel et al. 2009)
m10	GSM361435	MBcells_Ptc+-_Ink4c--_rep5	24227	Illumina	(Uziel et al. 2009)
m11	GSM361436	MBcells_P53--_Ink4c--_rep1	13763	Illumina	(Uziel et al. 2009)

m11	GSM361437	MBcells_P53--_Ink4c--_rep2	5745	Illumina	(Uziel et al. 2009)
m11	GSM361438	MBcells_P53--_Ink4c--_rep3	21286	Illumina	(Uziel et al. 2009)
m11	GSM361439	MBcells_P53--_Ink4c--_rep4	25629	Illumina	(Uziel et al. 2009)
m11	GSM361440	MBcells_P53--_Ink4c--_rep5	28663	Illumina	(Uziel et al. 2009)
		***C. elegans* datasets**			
c1	GSM297742	Embryo, whole worms	453330	Illumina	(Batista et al. 2008)
c2	GSM297743	L1, whole worms	273791	Illumina	(Batista et al. 2008)
c3	GSM297744	L2, whole worms	241350	Illumina	(Batista et al. 2008)
c4	GSM297745	L3, whole worms	498478	Illumina	(Batista et al. 2008)
c5	GSM297746	L4, whole worms	479967	Illumina	(Batista et al. 2008)
c6	GSM297747	Adult, whole worms	371937	Illumina	(Batista et al. 2008)
c7	GSM297748	Dauer L3, whole worms	143886	Illumina	(Batista et al. 2008)
c8	GSM297749	glp-4 adult, whole worms	270573	Illumina	(Batista et al. 2008)
c9	GSM297750	mixed-stage, whole worms	982012	Illumina	(Batista et al. 2008)
c10	GSM297751	Adult, whole worms	1205751	Illumina	(Batista et al. 2008)
c11	GSM297752	prg-1 adult, whole worms	1076401	Illumina	(Batista et al. 2008)
c12	GSM297753	fog-2 adult, whole worms	869848	Illumina	(Batista et al. 2008)

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