

Supplemental Table 1. Library mapping statistics.

Mapping to:	DM3 genome		Reporter					42AB	Rebase	miRNA	Endo-siRNA
	Sample	All reads	All reads	5'U reads	Specific reads	Specific 5'U reads	All sense reads	Specific reads	5'U 23-29nt reads	Unique reads	All reads
ΔN-GFP (TJ-gal4) replicate 1 %	2344077	45	17	34	14	44	46879	957552	510848	3034	
ΔN-GFP (TJ-gal4) replicate 2	6333387	92	41	61	25	84	123904	2525139	1503061	8681	
ΔN-Yb (TJ-gal4) replicate 1 %	4849740	1797	1477	1130	960	1795	120766	1965418	1446366	7145	
ΔN-Yb (TJ-gal4) replicate 2	9291798	1195	907	664	506	1188	244535	3456252	3060715	14563	
ΔN-Piwi (TJ-gal4) replicate 1 %	6371453	1031	641	806	486	997	136398	2404211	1511076	4554	
ΔN-Piwi (TJ-gal4) replicate 2	8359291	900	213	605	146	298	188777	3322242	2363988	12010	
ΔN-GFP (MT-gal4) replicate 1 %	12046162	129	74	66	30	115	378358	4452673	3129830	11894	
ΔN-GFP (MT-gal4) replicate 2	5956459	50	32	27	17	48	189674	2522173	1586086	6601	
ΔN-Cuff (MT-gal4) replicate 1 %	11050911	143	74	87	40	132	247942	4679320	3736766	14756	
ΔN-Cuff (MT-gal4) replicate 2	101027	4	0	4	0	3	2433	37282	8189	14	
ΔN-THOC5 (MT-gal4) replicate 1 %	2848142	126	63	86	38	122	35499	1345862	686334	4473	
ΔN-THOC5 (MT-gal4) replicate 2	13246	1	0	1	0	1	171	3733	6134	27	
ΔN-Zuc (MT-gal4) replicate 1 %	7021497	6288	931	6231	910	6282	100692	2075995	2998093	18089	
ΔN-Zuc (MT-gal4) replicate 2	6672189	8458	1099	8394	1084	8450	101182	2164831	2441202	13050	
ΔN-Piwi (MT-gal4) replicate 1 %	14003310	2820	1732	1916	1044	2808	302992	5291372	3104376	8390	
ΔN-Piwi (MT-gal4) replicate 2	10501272	854	502	662	378	849	172803	3851723	4056208	18948	
ΔN-Arx (MT-gal4) replicate 1 %	4977488	60	38	46	32	52	159264	1866641	1313932	4254	
ΔN-Arx (MT-gal4) replicate 2	1720575	25	18	13	10	22	40744	571814	558210	3576	
ΔN-Egg (MT-gal4) replicate 1 %	11654274	587	159	487	126	573	238818	3195948	4731174	25383	
ΔN-Egg (MT-gal4) replicate 2	6326648	490	162	264	77	422	137834	1939413	1980572	12613	
ΔN-Panx (MT-gal4) replicate 1 %	6407104	100	64	69	46	94	187024	2479665	1894213	8683	
ΔN-Panx (MT-gal4) replicate 2	2302003	104	42	70	28	99	45065	638213	845587	4952	
ΔN-Aub (MT-gal4) replicate 1 %	5898318	674	377	599	337	670	150375	2146550	1634008	5480	
ΔN-Aub (MT-gal4) replicate 2	6461928	811	437	809	436	803	174663	2535271	1623796	8451	
ΔN-Armi (MT-gal4) replicate 1 %	3824887	2145	1768	1465	1261	2143	87874	1297263	1223310	4634	
ΔN-Armi (MT-gal4) replicate 2	9266056	5320	3957	3469	2699	5310	240435	3642518	2989403	8157	
ΔN-Piwi GFP-Piwi IP replicate 1 %	18781682	7948	4391	5868	2976	7915	698560	8786907	1348207	2960	
ΔN-Piwi GFP-Piwi IP replicate 2	7791490	5688	2838	1163	1459	5677	220880	3619280	211387	527	
ΔN-Aub Piwi IP replicate 1 %	9028977	2048	856	1720	646	2037	25954	4759656	134642	599	
ΔN-Aub Piwi IP replicate 2	7151788	1537	873	1103	541	1531	213405	3360445	384500	1084	
ΔN-Zuc GFP-Piwi IP replicate 1 %	8943934	555	232	4871	142	552	313258	5202163	266054	721	
ΔN-Zuc GFP-Piwi IP replicate 2	5197468	483	186	404	116	480	117748	2211612	1017994	2166	
ΔN-Piwi sh-White replicate 1 %	9138738	2326	1439	1995	1220	2313	227634	4008593	2067270	7110	
ΔN-Piwi sh-White replicate 2	5781800	2284	1457	1904	1196	2276	135017	2448831	1223758	4072	
ΔN-Piwi sh-Panx replicate 1 %	6321423	2190	1317	1821	1069	2183	230065	2577153	1654769	5076	
ΔN-Piwi sh-Panx replicate 2	1128098	436	284	366	239	433	40054	428881	262232	740	
ΔN-Piwi sh-Egg replicate 1 %	9978444	1799	1074	1443	815	1787	235554	3639827	3237148	11168	
ΔN-Piwi sh-Egg replicate 2 %	5861571	1345	837	1137	682	1332	117890	1725870	1866563	9216	
ΔN-Piwi sh-Cuff replicate 1 %	7348197	4298	2764	3637	2280	4287	35247	1816550	2841750	9819	
ΔN-Piwi sh-Cuff replicate 2	4926517	3207	2253	2561	1753	3184	19695	1056932	2047340	6096	
ΔN-Piwi sh-THOC5 replicate 1 %	3973885	1304	765	1134	645	1304	88488	1619213	1104102	3141	
ΔN-Piwi sh-THOC5 replicate 2	3600626	1311	789	1067	615	1311	76982	1310241	1019678	3451	
ΔN-Piwi sh-Zuc replicate 1 %	2087785	76	13	64	12	73	19094	399880	821114	5028	
ΔN-Piwi sh-Zuc replicate 2	514916	40	12	27	9	34	4863	105125	179913	1600	
ΔN-Piwi sh-Armi replicate 1 %	4245306	82	23	66	15	80	27284	756263	2395362	9589	
ΔN-Piwi sh-Armi replicate 2	4389133	121	40	94	34	112	29821	790865	2457437	12015	
ΔN-Piwi sh-Vasa replicate 1 %	7560513	867	506	697	393	861	76396	1813136	4011742	18746	
ΔN-Piwi sh-Vasa replicate 2	2594545	407	205	339	159	401	20695	438649	1257932	8632	
ΔN-Piwi sh-Krimper replicate 1 %	10530300	1273	829	955	592	1227	166110	3080713	4466063	23662	
ΔN-Piwi sh-Krimper replicate 2	1368207	132	76	92	53	125	13462	251310	564699	4629	
ΔN-Piwi sh-Aub replicate 1 %	374891	106	70	87	59	104	3207	69579	185468	771	
ΔN-Piwi sh-Aub replicate 2	6348155	1674	1046	1331	812	1670	66845	1334711	3043905	15943	
ΔN-Piwi sh-AGO3 replicate 1 %	3759996	2755	1743	2337	1410	2750	58243	1036373	1317907	3494	
ΔN-Piwi sh-AGO3 replicate 2	3830634	2240	1333	1837	1057	2225	47351	874200	1568077	6265	
ΔN-GFP (MT-gal4) NaIO4 treated replicate 1 %	1265932	30	15	21	10	30	47426	756081	4648	720	
ΔN-GFP (MT-gal4) NaIO4 treated replicate 2	1562407	104	52	92	42	101	50061	941412	5063	986	
ΔN-Zuc (MT-gal4) NaIO4 treated replicate 1 %	380848	16	9	14	8	16	10154	239434	1825	494	
ΔN-Zuc (MT-gal4) NaIO4 treated replicate 2	67210	6	3	6	3	6	1658	39726	1354	72	
ΔN-Piwi (MT-gal4) NaIO4 treated replicate 1 %	283137	52	33	36	24	50	6702	171507	641	126	
ΔN-Piwi (MT-gal4) NaIO4 treated replicate 2	443150	68	37	58	28	68	10785	254763	2534	167	
ΔN-Aub (MT-gal4) NaIO4 treated replicate 1 %	3980774	381	230	263	155	378	135912	2293238	6477	1879	
ΔN-Aub (MT-gal4) NaIO4 treated replicate 2	175259	14	8	14	8	14	5824	85906	746	116	
ΔN-Armi (MT-gal4) NaIO4 treated replicate 1	48081	7	2	3	2	7	1512	16912	517	32	
ΔN-Armi (MT-gal4) NaIO4 treated replicate 2 %	1706046	1817	1461	550	438	1812	51069	1039851	12395	2031	
ΔN-GFP-Piwi with GFP reporter %	8963238	509	250	505	199	482	157730	3181335	3083185	17602	
ΔN-GFP with GFP reporter %	4582258	50	27	22	17	30	11071	1948988	1100320	6146	
ΔN-FLAG-Piwi with GFP reporter %	7203731	501	253	420	217	474	112806	2143920	3265805	16256	
ΔN-FLAG with GFP reporter %	12885683	321	122	140	58	300	320330	4566240	4531623	24346	
ΔN-FLAG-Piwi with mKate2 reporter %	9840772	1881	1345	1584	1126	1874	253903	4457571	1814397	8643	
ΔN-FLAG with mKate2 reporter %	4126774	67	35	50	28	63	121205	1673304	1028499	3430	

% Indicates which replicate is plotted on tracks