

Table S2 Down-regulated mRNAs

gene_id	D1	D2	D3	T1	T2	T3	DEX	TBI	log2FoldChange	pvalue	padj
ENSRNOG000000027079	9.437965186	13.43938222	16.01172319	282.6220192	467.265042	249.50354	12.96023253	333.1302004	-4.677626899	1.13E-31	1.88E-27
ENSRNOG000000052600	20.97325597	39.28434804	29.19784818	188.7406564	199.162149	230.31096	29.81848406	206.0712552	-2.788264136	4.30E-18	1.78E-14
ENSRNOG000000055179	1.097325597	9.304187694	5.651196421	102.6827405	134.0514465	225.2602811	5.684236571	153.998156	-4.75708034	1.15E-17	3.82E-14
ENSRNOG000000060956	2.3277501	8.67009198	110.1983302	491.8992238	575.708892	349.5069832	109.0486411	462.3956987	-2.084561999	1.82E-13	4.30E-10
ENSRNOG000000002117	10.48662798	11.37178496	18.8373214	196.5641033	117.7377008	90.9122105	13.56524478	135.0833651	-3.30872185	1.09E-12	2.12E-09
novel.869	4.194651194	1.033798633	11.30239284	106.822566	96.70854353	87.88181368	5.5102089	98.03953793	-4.126852765	1.28E-12	2.12E-09
ENSRNOG000000031662	147.8614546	80.63629335	215.6873301	2302.042925	846.4391334	723.2572253	15.0486927	1290.58187	-3.12288531	9.61E-12	1.13E-08
ENSRNOG000000046803	19.82459317	11.37178496	10.36052677	104.6386203	86.17592988	112.1250726	13.88563497	100.9798683	-2.868636872	1.02E-11	1.13E-08
ENSRNOG000000059776	17.82272657	13.43938222	17.89545533	409.7530013	196.983653	396.983653	11.45406192	288.0623388	-4.13480424	1.03E-11	1.13E-08
ENSRNOG000000015275	52.43313992	73.21675078	53.686366	655.2136778	184.7994941	260.6150337	47.77875223	366.8760685	-2.940216885	1.33E-10	1.30E-07
novel.824	224.4138389	155.0697949	214.745464	639.566784	526.6306826	488.9057221	198.0763599	551.7010629	-1.477548471	2.43E-10	2.23E-07
ENSRNOG000000012307	18.87593037	11.37178496	17.89545533	92.90343193	78.51584722	106.0642579	16.04772356	106.4451235	-2.524868758	5.31E-10	4.99E-07
ENSRNOG000000013828	131.082498	51.68993163	158.2334998	734.4260776	412.6889531	666.686211	113.6687604	604.6008839	-2.409825049	8.16E-10	6.14E-07
ENSRNOG000000036675	31.45988395	23.77736855	56.51196421	217.1006514	206.8222317	142.4291463	37.24973891	188.7840986	-2.3362369	1.41E-09	1.02E-06
ENSRNOG000000059714	1000.42431	841.512087	1000.320382	420.49855	3096.5088414	974.0855931	383.084474	1831.396484	-1.66240431	2.31E-08	1.32E-05
ENSRNOG000000004567	164.6400594	191.252747	134.686848	554.486799	417.4745047	359.6083411	163.5265515	443.8656482	-1.441643935	2.53E-08	1.39E-05
ENSRNOG000000001360	1051.808787	586.1638247	895.7146327	2365.614756	2586.235407	1811.173471	844.5624148	2254.341211	-1.416449396	3.64E-08	1.88E-05
ENSRNOG000000006549	45.09250033	64.09551523	64.04689277	193.6303107	139.7965085	171.7191947	57.74496944	183.535338	-1.666397983	9.43E-08	4.56E-05
ENSRNOG000000006231	663.8035514	739.1660224	843.9119989	1509.925252	1378.814878	1336.409649	748.9605242	1408.38326	-0.910697227	9.93E-08	4.57E-05
ENSRNOG000000004824	141.5694778	105.4474605	166.7102944	303.1585673	354.2788228	416.1759453	137.9090776	357.871118	-1.374285658	1.42E-07	6.36E-05
ENSRNOG0000000049878	12.58395358	8.270389061	9.418660702	47.91861226	40.91861226	51.51692526	10.09100111	83.25488655	-3.046776958	3.80E-07	0.00015722
novel.276	39.84918634	14.47318086	22.60478568	221.9903058	119.6887915	67.88181368	25.64238499	143.1869703	-2.483366455	4.69E-07	0.00018433
ENSRNOG0000000019894	11.53529078	3.101395898	25.43038389	151.5792387	88.09095054	84.85140632	13.35566019	108.1738802	-3.00738795	5.18E-07	0.000194817
ENSRNOG000000013330	346.0587235	158.1711908	275.0248925	744.2053863	615.6791434	845.4836558	259.7516023	735.1227285	-1.500754538	5.41E-07	0.000199141
ENSRNOG0000000013794	337.6694211	259.4834568	421.0141334	839.0646799	705.685114	720.2268179	339.3890038	745.9922044	-1.152720813	5.85E-07	0.000205941
ENSRNOG000000025393	68.1630819	70.29830702	99.83760344	141.799975	492.1603106	402.0340442	474.3314433	354.3314433	-2.119082032	8.69E-07	0.000276828
ENSRNOG0000000060054	176.1753501	155.0697949	183.6638837	329.5627006	324.5960025	368.6995632	171.6363429	340.9527554	-0.989492615	1.16E-06	0.000348074
ENSRNOG000000011141	91.2336347	28.94636172	110.1983302	262.0854171	305.4457959	355.5677979	76.79278513	307.6996883	-2.000665306	2.16E-06	0.000587302
ENSRNOG0000000015156	263.2143624	113.7178496	209.0947496	730.5143542	845.4816231	521.2300674	222.3423205	699.0753482	-1.652160392	2.68E-06	0.000707529
novel.701	7.340639589	5.168993163	2.825598211	18.58086839	90.96384153	59.5801158	5.111743654	56.3807265	-3.472980567	2.89E-06	0.000735957
ENSRNOG0000000024882	59.77377951	8.270389061	54.62823207	311.9599451	1059.006427	674.7707074	40.89080021	681.9123599	-4.059242602	2.97E-06	0.000744987
ENSRNOG0000000012278	46.14116313	32.04775761	36.73277674	89.96969394	145.5415705	121.6126247	38.30723969	118.9091682	-1.635243101	3.30E-06	0.000816015
ENSRNOG0000000011858	225.4625017	182.982358	267.4899639	475.2743991	574.5061992	408.0948589	225.3116079	485.9584857	-1.108272425	4.21E-06	0.000940202
ENSRNOG0000000056550	1316.071812	1047.238015	1336.507954	2685.398148	1986.833939	2201.085885	1233.272594	2291.105991	-0.893448933	4.72E-06	0.001002818
ENSRNOG0000000038598	4.194651194	1.033798633	64.04689277	182.39030351	82.14619244	22.98024797	3.312593302	44.47008084	-3.739881628	5.53E-06	0.00114562
ENSRNOG0000000011068	380.6645958	301.8692007	497.3052851	1007.268788	688.4499287	912.1526179	393.2796939	869.2904449	-1.143568338	6.64E-06	0.001398858
ENSRNOG0000000056428	3.145988395	5.168993163	4.709330351	54.76412829	155.1166738	8.08106316	4.341437303	72.65396279	-4.063629618	7.51E-06	0.001413435
novel.242	18.87593037	8.270389061	52.74449993	397.0399301	157.0316944	79.8007237	26.63027312	211.290784	-2.983157054	7.90E-06	0.001453287
ENSRNOG0000000013262	2.097325597	0	6.593062491	43.02895794	31.59784095	36.3648842	2.896796029	36.99722911	-3.643559819	8.03E-06	0.001457054
ENSRNOG000000000005065	24.11924346	8.270389061	36.73277674	117.5517035	107.2411572	90.9122105	23.04083309	105.1683606	-3.7832676	8.38E-06	0.001460513
ENSRNOG0000000045771	2498.963449	1351.174813	2210.559667	4165.007543	4845.00228	3973.874196	2020.232643	4327.961339	-1.099151615	9.06E-06	0.001530492
ENSRNOG0000000013867	305.1608744	216.0639142	208.1524015	705.0881518	704.7276043	389.9124147	243.12573	599.9093903	-1.303760939	1.02E-05	0.001664193
ENSRNOG00000000011750	10.48662798	19.64217402	40.50024102	197.5420342	174.7500482	23.54301434	23.54301434	126.1919098	-2.419594225	1.06E-05	0.001718262
novel.388	11.53529078	23.77736855	10.36052677	266.9751254	55.53559925	47.47638211	15.22439537	123.3290356	-3.020368776	1.23E-05	0.001983138
ENSRNOG0000000014385	40.89784914	26.87876445	72.5236874	155.4910071	120.6463018	32.310196	46.766767	168.8160896	-1.847640599	1.63E-05	0.002043763
ENSRNOG0000000016654	56.62779112	31.01395898	38.61650888	142.7779059	108.1986675	109.0946653	42.08068633	120.0237462	-1.513436228	1.82E-05	0.002604803
ENSRNOG0000000046299	25.16790716	20.67597265	23.54665175	25.42620242	135.0089568	442.4394758	23.13017719	200.9582117	-3.118729209	1.87E-05	0.002621684
ENSRNOG0000000047943	6.291976791	1.033798633	6.593062491	13.69103207	40.83068788	66.68696211	4.639612638	53.59695402	-3.524188785	2.02E-05	0.00278403
ENSRNOG0000000001926	3.145988395	9.304187694	11.30239284	42.05102708	179.0544321	81.78290603	7.915232977	81.78290603	-3.363611836	2.09E-05	0.002863735
ENSRNOG0000000008439	13.63261638	4.135194531	6.593062491	182.8730713	27.76779963	36.3648842	8.120291134	82.3352531	-3.345187593	2.29E-05	0.003025375
novel.150	34.60587235	23.77736855	73.46555347	272.8427106	155.1166738	115.155448	43.94959813	181.0382881	-2.03849914	2.42E-05	0.00311255
ENSRNOG00000000011184	59.77377951	99.24466874	155.4079016	237.6371996	576.4212198	284.8582926	104.8087833	366.3055707	-1.803755848	2.42E-05	0.00311255
ENSRNOG00000000040890	199.2459317	163.340184	287.2691514	552.5309372	471.0950833	403.04418	216.6184224	475.5567335	-1.133273051	2.84E-05	0.003597184
ENSRNOG0000000021234	189.8079665	153.0021976	237.3502497	1163.737726	292.9981616	551.5341411	193.3868046	669.423343	-1.791011647	3.37E-05	0.0041042
ENSRNOG00000000012216	653.3169234	349.4239378	856.1562578	1408.220442	1665.110467	1355.602229	619.632373	1476.311046	-1.25214734	4.38E-05	0.005001934
ENSRNOG0000000007332	203.4405829	74.43350155	235.4665175	550.5750755	542.9083582	407.0847232	171.113534	500.1893965	-1.546759853	5.25E-05	0.005804027
novel.1045	2.097325597	0	6.593062491	101.7048097	20.10771697	21.21825158	2.896796029	47.67512808	-4.017960059	5.33E-05	0.005844214
ENSRNOG0000000010475	829.4922736	499.3247396	975.7732487	2673.662978	1346.259527	1647.531473	768.196754	1889.151326	-1.297986799	5.37E-05	0.00584497
ENSRNOG00000000024923	4584.753755	4867.123963	4740.776642	15688.94483	11853.0204	864.7171679	5619.884787	12061.22563	-1.101720647	6.11E-05	0.006243855
ENSRNOG0000000023803	187.7106409	115.7854469	120.558857	250.3503008	319.8084509	360.6184768	141.3516483	310.2590762	-1.135096111	6.80E-05	0.006281663
ENSRNOG0000000050181	18.87593037	4.135194531	13.18612498	107.5723949	14.36265498	215.1589232	12.06574996	112.3646577	-3.218708657	6.90E-05	0.006879119
novel.870	49.28715153	18.60837539	74.40741954	40.9758268	175.2243907	129.2973811	47.43431549	168.3325329	-1.824185138	7.09E-05	0.006991409
ENSRNOG0000000004697	3180.594268	1625.131451	3282.403255	893.078488							

Table S3 Up-regulated miRNAs

sRNA	DEX_readcount	TBI_readcount	log2FoldChange	pval	padj
rno-miR-3065-5p	3560.24711	1680.894791	0.97695	2.25E-06	0.00032186
rno-miR-338-3p	3560.627362	1680.894791	0.97716	2.23E-06	0.00032186
rno-miR-142-3p	281.0159749	159.351363	0.76147	1.31E-05	0.0014096
rno-miR-24-1-5p	573.2919838	384.8106147	0.55729	2.50E-05	0.0015301
rno-miR-219a-2-3p	36739.70448	22631.77568	0.65805	5.78E-05	0.0019065
rno-miR-219b	36687.40718	22580.41356	0.65918	5.63E-05	0.0019065
rno-miR-3074	428.5940572	277.2571469	0.6022	4.72E-05	0.0019065
rno-miR-34a-5p	1312.059849	783.7047226	0.69515	6.68E-05	0.0020463
rno-miR-24-3p	23119.69043	18297.57326	0.33195	0.00017732	0.0047545
rno-miR-3065-3p	4751.197976	2709.367188	0.73452	0.00029166	0.0065855
rno-miR-338-5p	4850.017585	2770.515281	0.73279	0.00028839	0.0065855
rno-miR-181a-5p	58233.87567	35823.07747	0.6481	0.00042658	0.0084069
rno-miR-181b-5p	17260.45083	10464.51886	0.66439	0.00042964	0.0084069
rno-miR-674-3p	3006.784495	2036.145624	0.52976	0.0010606	0.018383
rno-miR-206-3p	253.078875	152.2944791	0.65913	0.0021246	0.030382
rno-let-7d-3p	1459.045047	1020.833663	0.48547	0.002469	0.034168
rno-miR-423-3p	902.7767867	634.0164783	0.4811	0.0027664	0.037088
rno-miR-219a-5p	178.1591974	98.51790567	0.72656	0.0035005	0.042906

Table S4 Down-regulated miRNAs

sRNA	DEX_readcount	TBI_readcount	log2FoldChange	pval	padj
rno-miR-7a-5p	435097.3693	783697.9923	-0.80392	2.63E-07	0.00011269
rno-miR-873-5p	941.1774494	1618.701615	-0.73274	1.75E-05	0.0015006
rno-miR-135a-3p	217.3176405	378.9180432	-0.74337	2.14E-05	0.0015301
rno-miR-3579	2004.125885	2799.341916	-0.46856	4.09E-05	0.0019065
rno-miR-380-5p	2004.651077	2802.510805	-0.46986	3.72E-05	0.0019065
rno-miR-7a-2-3p	304.5941613	511.4763462	-0.69608	5.38E-05	0.0019065
rno-miR-6331	885.9687917	1214.636031	-0.44204	0.00014881	0.0042559
rno-miR-539-3p	834.6599286	1166.582415	-0.46587	0.0002534	0.0063947
rno-miR-379-5p	51224.19295	69256.1727	-0.42184	0.00043112	0.0084069
rno-miR-431	840.9467138	1134.098679	-0.41573	0.00083049	0.01549
rno-miR-770-3p	1232.999289	1670.748784	-0.42183	0.0010713	0.018383
rno-miR-7b	42416.92922	65476.64811	-0.58089	0.001309	0.021599
rno-miR-152-3p	2306.436134	3910.824602	-0.6804	0.001544	0.024533
rno-miR-488-5p	44.05245606	75.19996613	-0.68234	0.0018047	0.026698
rno-miR-667-5p	132.3334002	200.2719997	-0.55831	0.0017463	0.026698
rno-miR-873-3p	284.8529718	454.0614683	-0.60966	0.002957	0.038442
rno-miR-664-2-5p	213.6551185	288.7347305	-0.41984	0.0033801	0.042649

Table S7 Selected target genes of the up-regulated miRNAs

sRNA_id	mRNA_id	mRNA_name
rno-miR-142-3p	ENSRNOG00000005108	Wfs1
rno-miR-34a-5p	ENSRNOG00000056558	Gabra3
rno-miR-24-3p	ENSRNOG00000011858	Unc5d
rno-miR-3065-3p	ENSRNOG00000010516	Plau
rno-miR-3065-3p	ENSRNOG00000018384	Adam12
rno-miR-674-3p	ENSRNOG00000010841	Col8a2

Table S8 Selected target genes of the down-regulated miRNAs

sRNA_id	mRNA_id	mRNAname
rno-miR-873-5p	ENSRNOG00000015520	Ticrr
rno-miR-873-5p	ENSRNOG00000045924	RT1-T24-3
rno-miR-135a-3p	ENSRNOG00000004444	Ikzf1
rno-miR-135a-3p	ENSRNOG00000027938	RGD1562037
rno-miR-3579	ENSRNOG00000022640	Siglec8
rno-miR-6331	ENSRNOG00000002776	Sell
rno-miR-431	ENSRNOG00000016575	Tnfrsf1b
rno-miR-770-3p	ENSRNOG00000011781	Oplah
rno-miR-152-3p	ENSRNOG00000021098	Rasgrp2
rno-miR-667-5p	ENSRNOG00000001113	Mmd2
rno-miR-667-5p	ENSRNOG00000001143	Cit
rno-miR-667-5p	ENSRNOG00000002045	Anxa3
rno-miR-667-5p	ENSRNOG00000007102	Acss1
rno-miR-667-5p	ENSRNOG00000007574	Padi2
rno-miR-667-5p	ENSRNOG00000008421	Klh5
rno-miR-667-5p	ENSRNOG00000008857	Adamts10
rno-miR-667-5p	ENSRNOG00000013825	Rap1gap
rno-miR-667-5p	ENSRNOG00000019659	Aspa
rno-miR-667-5p	ENSRNOG00000024382	Fcgr3a
rno-miR-667-5p	ENSRNOG00000027938	RGD1562037
rno-miR-667-5p	ENSRNOG00000029528	Cbs
rno-miR-667-5p	ENSRNOG00000031443	Havcr2
rno-miR-664-2-5p	ENSRNOG00000042041	Gal3st1