

Table S7. POLR3D (RPC4)-only peaks with putative termination sites					
row number	Chromosomal location	Name	Peak ID	Peak score	Unique tags (%)
1	chr7:148269512-148269596	<i>RNY5 (hY5_RNA) and MIR1975 (hsa-mir-1975)</i>	POLR3D (RPC4)_1422	155.00	100.0
2	chr7:148291339-148291432	<i>RNY4 (hY4_RNA)</i>	POLR3D (RPC4)_1423	140.00	100.0
3	chr15:65919330-65919437	<i>RNU6 (U6-1)</i>	POLR3D (RPC4)_2106	138.27	44.0
4	chr14:31741001-31741107	<i>RNU6 (U6-7)</i>	POLR3D (RPC4)_2026	16.57	6.2
5	chr3:32782851-32783251	<i>CNOT10</i>	POLR3D (RPC4)_581	307.88	96.7
6	chr3:156669545-156675571	<i>L1PA2 LINE_L1</i>	POLR3D (RPC4)_647	255.65	61.8
7	chr13:98857606-98857913	<i>AluSq_SINE_Alu</i>	POLR3D (RPC4)_1989	109.58	49.5
8	chr20:41713686-41713999	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4)_2432	109.24	84.9
9	chr22:39206693-39206862	<i>AluSc_SINE_Alu</i>	POLR3D (RPC4)_2482	97.81	87.6
10	chr19:308075-308378	<i>AluSg_SINE_Alu</i>	POLR3D (RPC4)_2345	97.61	92.5
11	chr13:59794387-59794681	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4)_1973	97.42	92
12	chrX:28134829-28140827	<i>L1PA2 LINE_L1</i>	POLR3D (RPC4)_2505	90.10	19.4
13	chr17:17804234-17804676	<i>AluJb_SINE_Alu</i>	POLR3D (RPC4)_2238	66.00	100
14	chr22:35915466-35921453	<i>MER41B-int_LTR_ERV1</i>	POLR3D (RPC4)_2481	62.00	100
15	chr18:8016571-8016971	<i>PTPRM</i>	POLR3D (RPC4)_2308	56.89	80.9
16	chr2:44316756-44317070	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4)_417	54.00	100
17	chr5:17582025-17582117	<i>OTHER</i>	POLR3D (RPC4)_923	53.99	1.8
18	chr8:90485069-90486000	<i>HUERS-P1_LTR_ERV1</i>	POLR3D (RPC4)_1654	43.00	100
19	chr1:146219305-146219397	<i>OTHER</i>	POLR3D (RPC4)_161	37.00	100
20	chr1:149116080-149116376	<i>AluSq_SINE_Alu</i>	POLR3D (RPC4)_189	32.00	100
21	chr4:147027827-147027908	<i>MIRb_SINE_MIR</i>	POLR3D (RPC4)_850	29.00	100
22	chr2:91063672-91063887	<i>AluSg/x_SINE_Alu</i>	POLR3D (RPC4)_444	14.67	50
23	chr2:62672622-62672934	<i>AluY_SINE_Alu</i>	POLR3D (RPC4)_427	161.00	100
24	chr3:89092838-89093137	<i>AluSq_SINE_Alu</i>	POLR3D (RPC4)_610	200.20	99.4
25	chr3:184657673-184657960	<i>AluY_SINE_Alu</i>	POLR3D (RPC4)_667	190.84	91.1
26	chr19:61692261-61692570	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4)_2414	24.37	91.6
27	chr3:25588811-25589211	<i>RARB</i>	POLR3D (RPC4)_575	42.00	100.0
28	chr1:174166096-174166396	<i>AluSp_SINE_Alu</i>	POLR3D (RPC4)_285	21.98	40
29	chr2:62672622-62672934	<i>AluY_SINE_Alu</i>	POLR3D (RPC4)_427	161.00	100
30	chr2:86677885-86678181	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4)_436	96.85	60.6
31	chr3:89092838-89093137	<i>AluSq_SINE_Alu</i>	POLR3D (RPC4)_610	200.20	99.4
32	chr3:150878051-150878305	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4)_643	74.00	91.3

33	chr3:171543568-171543860	<i>AluSc_SINE_Alu</i>	POLR3D (RPC4) 655	51.03	92
34	chr3:184657673-184657960	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 667	190.84	91.1
35	chr4:189459671-189459974	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 866	65.48	79.1
36	chr6:54553434-54553735	<i>AluYa5_SINE_Alu</i>	POLR3D (RPC4) 1302	14.03	55.5
37	chr6:111670152-111670454	<i>AluJo_SINE_Alu</i>	POLR3D (RPC4) 1317	98.85	88.2
38	chr7:80410298-80410444	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 1385	88.42	98.8
39	chrX:16200840-16201136	<i>AluSq_SINE_Alu</i>	POLR3D (RPC4) 2498	160.00	100
40	chrX:118041959-118042264	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 2547	128.87	93.6
41	chr10:50265428-50265742	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4) 1780	76.00	100
42	chr12:37448586-37448878	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 1896	39.79	97.5
43	chr12:86075962-86076268	<i>AluSp_SINE_Alu</i>	POLR3D (RPC4) 1915	17.00	100
44	chr13:97582718-97582929	<i>AluSg/x_SINE_Alu</i>	POLR3D (RPC4) 1987	174.77	90.6
45	chr16:31411121-3141447	<i>AluSp_SINE_Alu</i>	POLR3D (RPC4) 2126	94.00	100
46	chr17:19845240-19845419	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 2241	134.41	99.2
47	chr18:7169578-7169865	<i>AluSc_SINE_Alu</i>	POLR3D (RPC4) 2306	148.25	90.3
48	chr18:35895841-35896139	<i>AluY_SINE_Alu</i>	POLR3D (RPC4) 2317	64.39	84.5
49	chr19:61692261-61692570	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4) 2414	24.37	91.6
50	chr22:40773335-40773541	<i>AluSg/x_SINE_Alu</i>	POLR3D (RPC4) 2485	98.95	93.5
51	chr3:17874770-17877887	<i>L1HS_LINE_L1</i>	POLR3D (RPC4) 574	48.27	90.1
52	chr4:93339580-93343600	<i>L1PA3_LINE_L1</i>	POLR3D (RPC4) 825	77.59	52.6
53	chr9:74193541-74193738	<i>MIRb_SINE_MIR</i>	POLR3D (RPC4) 1714	10.00	100
54	chr10:103796436-103796510	<i>MIR_SINE_MIR</i>	POLR3D (RPC4) 1801	13.00	100
55	chr14:20168430-20168508	<i>tRNA-Tyr-TAC_tRNA_tRNA</i>	POLR3D (RPC4) 2009	28.00	100
56	chr1:142731555-142731647	<i>OTHER</i>	POLR3D (RPC4) 146	12.00	100
57	chr16:33864005-33864097	<i>OTHER</i>	POLR3D (RPC4) 2168	18.11	73.6
58	chr5:34225985-34226077	<i>non-coding RNA</i>	POLR3D (RPC4) 1010	31.51	14.5
59	chr5:34227345-34227437	<i>OTHER</i>	POLR3D (RPC4) 1014	22.03	4.4
60	chr6:27668275-27668367	<i>OTHER</i>	POLR3D (RPC4) 1213	15.00	100
61	chr12:122737851-122738251	<i>TCTN2</i>	POLR3D (RPC4) 1933	48.00	82.9
62	chr3:29366371-29366771	<i>RBMS3</i>	POLR3D (RPC4) 578	105.15	86.5
63	chr4:46816151-46816551	<i>GABRB1</i>	POLR3D (RPC4) 712	314.00	100.0
64	chr7:6117791-6118191	<i>USP42</i>	POLR3D (RPC4) 1342	25.68	83.3
65	chr9:15700491-15700891	<i>C9orf93</i>	POLR3D (RPC4) 1695	73.46	93.0
66	chr3:59026492-59026806	<i>AluYb8_SINE_Alu</i>	POLR3D (RPC4) 597	20.21	36.6
67	chr14:49341216-49341522	<i>AluSx_SINE_Alu</i>	POLR3D (RPC4) 2038	43.00	100

68	chr1:159162111-159162385	<i>MER50_LTR_ERV1</i>	POLR3D (RPC4) 202	17.00	100
69	chr10:25223674-25223791	<i>MIR_SINE_MIR</i>	POLR3D (RPC4) 1772	14.00	100
70	chr1:16775265-16775357	<i>OTHER</i>	POLR3D (RPC4) 84	40.00	100

Table S7. POLR3D (RPC4) peaks without neighboring BDP1, BRF1, or SNAPC2 (SNAP45) peak, with no internal runs of four or more consecutive T residues on at least one strand, and flanked within fifty base pairs on either side by a run of four or more consecutive T residues on at least one strand. Known RNAP-III genes are marked in yellow in column 1. The genes labeled orange in the first column were shown to be transcribed *in vitro* (see Figure S3).