



















































































68	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	12.9133	-0.01187	1.115347	NaN	NaN	Outlier	12.96625	12.86002
69	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	47.2721	0.22311	1.10191	NaN	NaN	Outlier	48.8994	51.1948
70	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	22.7820	0.18873	1.01205	NaN	NaN	Outlier	24.0074	25.0564
71	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	38.05204	0.19348	1.09848	NaN	NaN	Outlier	39.15548	40.9456
72	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	1.87632	-1.52964	1.188181	NaN	NaN	Outlier	4.73517	1.640096
73	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	1.65667	-0.47266	1.18031	NaN	NaN	Outlier	1.92547	1.387866
74	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	0.00000	0.00000	1.00000	NaN	NaN	Outlier	0.00000	0.00000
75	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	3.62770	-0.7184	1.01313	NaN	NaN	Outlier	4.52179	2.74204
76	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	3.359458	-0.3465	1.073073	NaN	NaN	Outlier	3.760958	2.956204
77	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	47.26234	-1.12521	1.04423	NaN	NaN	Outlier	48.37071	49.93937
78	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	5.04091	-0.02144	1.07401	NaN	NaN	Outlier	6.110346	3.971716
79	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	1.21247	-2.55056	1.149095	NaN	NaN	Outlier	1.564874	0.583619
80	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	7.29718	-1.28463	1.08047	NaN	NaN	Outlier	10.34803	4.247607
81	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	0.982812	-0.46275	1.05168	NaN	NaN	Outlier	1.075283	0.145252
82	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	133.1014	-0.81438	1.043222	NaN	NaN	Outlier	134.05983	150.5935
83	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	1.923555	-1.60214	1.06237	NaN	NaN	Outlier	2.12026	0.23088
84	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	5.94564	-0.26211	1.03144	NaN	NaN	Outlier	6.0631	3.26017
85	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	5.12797	-1.3108	1.068466	NaN	NaN	Outlier	5.358286	4.85297
86	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	6.26282	-2.41029	1.049941	NaN	NaN	Outlier	6.51019	1.97202
87	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	7.08158	-1.2179	1.039181	NaN	NaN	Outlier	7.101848	4.37876
88	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	0.90206	-0.502064	1.1915	NaN	NaN	Outlier	0.336882	0.47799
89	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	0.494186	-0.50282	1.18478	NaN	NaN	Outlier	0.502321	0.48514
90	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	1.923555	-1.60214	1.06237	NaN	NaN	Outlier	2.12026	0.23088
91	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	1.97535	-0.92346	1.07253	NaN	NaN	Outlier	2.05723	1.26358
92	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	0.19118	-0.32588	1.08289	NaN	NaN	Outlier	0.21668	0.16669
93	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	15.40046	-0.65316	1.04316	NaN	NaN	Outlier	16.84454	11.96475
94	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	50.76156	-0.88014	1.03641	NaN	NaN	Outlier	52.76156	36.05614
95	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	5.94139	-1.27198	1.06440	NaN	NaN	Outlier	6.347591	4.602566
96	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	0.92821	-0.98749	1.05223	NaN	NaN	Outlier	1.038487	0.61217
97	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	26.60088	-0.06901	1.044031	NaN	NaN	Outlier	27.15746	16.0429
98	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	10.16554	-0.56147	1.04118	NaN	NaN	Outlier	10.55987	6.77001
99	AGCTCAATCTCGC	5179136	1.509442	5.941255	3.891171	3.479177	12.849156	2.079375	3.558239	4.6983	0	176.409	0.906366	1.30209	0.753483	1.970718	0.594486	3.574338	3.968552	8.895657	15.59816	20.2499	-0.52467	1.03709	NaN	NaN	Outlier	21.12063	14.25164
10																													







12	TCCTATGACGACTG	0	1.509442	1.485314	0.980798	0	2.569832	1.039688	1.186176	2.34915	0	0	0.996036	0.665145	0	1.478038	0	0	1.322851	1.098841	0	1.239066	-0.89973	1.142553	0.431007	NaN	Low	1.613379	0.864752			
12	TGCATCACTACTC	1.035827	0	10.3972	3.891771	0	2.569832	2.079375	1.186176	0	1.770725	2.164428	0	0.665145	0.376742	0.985359	1.783457	1.191446	1.322851	1.098841	0	1.629599	-1.38812	1.072299	0.195482	NaN	Low	2.352947	0.898997			
12	TGCATCACTACTC	1.179136	6.037769	47.33004	18.84384	0	2.569832	2.079375	1.186176	4.6983	0	2.164428	6.972252	2.868587	0.376742	0.985359	4.1614	1.191446	3.968552	2.197828	0.399953	6.255058	-1.74401	1.038777	0.092256	NaN	Low	9.475324	2.828754			
12	TGCATCACTACTC	0.322444	4.528326	32.6769	18.16316	10.43753	2.569832	2.158448	22.57335	2.34915	2.656087	6.491285	10.9564	9.977173	3.01933	3.941436	6.539043	3.282892	9.259954	6.593045	0.399953	8.409753	-1.28895	0.828883	0.119953	NaN	Low	12.0628	4.936704			
12	TTGGTATCTACTG	0	1.509442	0	0	0	0	0	0	0	0	0	0	0.986304	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.799905		
13	GCACTCACTACTG	2.071654	1.509442	7.426569	1.297257	0	0	2.079375	3.585829	0	0	1.082214	3.984144	0.997177	0.376742	0	2.972429	2.382892	0	1.098841	0	1.54189	-1.29827	1.099357	0.235321	NaN	Low	2.192344	0.891437			
13	GCACTCACTACTG	0	3.018884	4.455941	1.297257	0	0	1.551751	3.585829	0	0	3.246643	0.996036	2.65608	0	2.463397	2.377943	0	2.645701	0	0	1.543983	-1.4804	1.159298	0.032139	NaN	Low	2.618707	2.602959			
13	GGAGCCCGGGGG	1.035827	1.509442	14.85314	1.297257	0	0	2.328126	2.372353	0	1.770725	5.411071	0.996036	0.332572	0	0	0	1.191446	0	0	0	2.419818	1.001902	1.125945	0.374372	NaN	Low	6.131066	3.226566			
44	GAGCCCGGGGG	0	1.509442	43.0741	3.891771	2.569832	18.71438	4.744705	1.174575	0	4.328857	3.984144	1.33029	1.883708	0	0.594486	3.574338	7.937103	71.42465	1.198858	8.770771	2.019701	1.071624	0.059469	NaN	Low	3.470138	1.0714				
44	GGATCGCTGGGA	9.322444	3.018884	0	3.891771	20.87506	25.69832	8.317501	18.97882	1.174575	4.426812	12.98657	14.94054	2.993152	10.92551	21.18522	4.755886	42.89206	6.614253	30.76754	11.99858	12.78818	0.749802	0.816418	0.358407	0.504122	OK	9.537855	16.0385			
45	AGCCCGGGGGGG	2.071654	1.509442	109.3258	34.79177	15.41899	38.98907	24.90787	11.74575	3.5445	22.7265	31.87315	6.118876	3.990674	0.482679	1.783457	9.315168	10.5828	172.518	2.999716	28.97413	1.530575	1.023697	NaN	NaN	Outlier	14.90052	43.04775				
45	GATCGCTGGGAG	0	1.485314	0	3.479177	0	2.079375	2.372353	0	0	2.164428	0.996036	0.753483	0.985359	4.755886	1.191446	0	0	0	0	0	0.996036	-2.06681	1.895259	0.079898	NaN	Low	1.608122	0.384075			
45	GATCGCTGGGAG	6.219693	3.018884	4.455941	11.67531	34.79177	20.58666	1.998438	15.42029	3.523725	7.966262	9.739928	7.968287	2.993152	9.418539	20.19986	7.728315	21.44603	5.291402	28.56986	6.399244	11.62904	0.636717	0.79955	0.348774	0.95521	OK	9.103727	14.15436			
45	GGATCAATGTCAC	0	4.528326	0	3.479177	0	2.079375	3.585829	0	0.885362	3.246643	0	0.997177	2.637191	0.985359	2.377943	0	2.645701	2.197682	1.198858	1.865257	-1.5015	0.930411	0.871797	NaN	Low	1.962232	1.758283				
46	ATCGCTGGGAGT	13.46575	19.62735	8.911883	22.05337	24.35404	35.97765	3.957189	20.165	5.872875	3.12175	4.328857	10.9564	3.211159	8.288315	19.70718	3.50372	15.4888	5.291402	19.77913	7.599102	13.36018	0.508776	0.628351	0.925474	0.955515	OK	13.08807	13.63229			
46	ATCGCTGGGAGT	5.179136	12.07554	1.485314	1.589028	0	5.139665	10.93688	5.930882	3.523725	0.885362	0	0.996036	0.665145	0	1.478038	0	1.191446	0	0	0	2.345876	-1.52047	1.180022	0.167189	NaN	Low	2.485277	1.206476			
46	ATCGCTGGGAGT	6.219693	1.509442	1.485314	1.297257	0	0	3.585829	1.174575	0	0	0	0	0	0	0	0	0	0	0	0.870844	-1.56135	1.159413	0.15077	NaN	Low	1.300899	0.440789				
46	ATCGCTGGGAGT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.363891	-0.05729	0.435474	0.895338	NaN	Low	0.371115	0.356667				
47	ATAAATGTCACCA	3.107481	6.037769	1.485314	3.891771	0	0	1.998438	1.186176	0	0.885362	5.411071	0	1.33029	3.990674	1.478038	1.188971	5.95723	1.322851	1.098841	0.399953	2.168512	-1.43719	0.969563	0.091534	NaN	Low	3.167363	1.03666			
47	TCCTGGGCTCCAG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.075028	-1.06405	0.691405	0.812448	NaN	Low	1.575962	0.140181				
47	TCCTGGGCTCCAG	0	1.485314	0	3.479177	0	0.103968	0	1.174575	0	0	1.920072	0.665145	1.883708	1.478038	0.594486	0	0	0	0	0	0.68961	-1.83909	1.188726	0.112138	NaN	Low	1.077938	0.301282			
47	TCCTGGGCTCCAG	0	6.037769	0	2.594514	0	0	0	0	0	0	1.082214	3.984144	1.995435	1.506966	0.492679	0	0	0	0	0	0.884686	-1.56993	1.193419	0.188346	NaN	Low	1.323563	0.458089			
47	TCCTGGGCTCCAG	9.322444	13.58498	4.455941	15.56708	17.39588	12.84916	6.238126	8.303235	4.6983	4.426812	3.246643	1.920072	1.990689	5.651124	11.31363	8.3228	11.91446	3.968552	16.48261	4.799443	8.427108	0.347979	0.592862	0.557239	NaN	Low	7.415695	9.438521			
47	TCCTGGGCTCCAG	11.3941	13.58498	4.455941	15.56708	3.479177	7.709497	4.159751	7.117058	5.872875	0.885362	0	0.996036	0.997177	0	1.478038	0	1.191446	0	0	0	0.075028	-1.06405	0.691405	0.812448	NaN	Low	2.485277	1.206476			
48	TCCTGGGCTCCAG	0	0	0	0	0	0	0	0	0	0	1.082214	0	0	0	0	0	0	0	0	0	0.885362	0	0	0	0	0	0	0	0.753483	0.492679	0.594486
48	TCCTGGGCTCCAG	0	12.07554	4.455941	5.189028	3.479177	0	0	10.67559	2.34915	0.885362	0	0.665145	0.376742	0	0	0	0	0	0	0	2.370123	-1.99946	1.189497	0.091534	NaN	Low	3.791915	0.948331			
48	TCCTGGGCTCCAG	8.286617	10.56609	0	3.891771	6.958353	5.139665	1.039688	7.117058	0	1.082214	0	0.332572	0	0.492679	0.594486	0	0	0	0.399953	2.255058	-1.6202	1.160074	0.165782	NaN	Low	3.463481	1.226354				
48	TCCTGGGCTCCAG	0	0	2.970628	1.898028	0	0	0	13.04794	1.174575	0	0	0.996036	0.997177	1.130225	0	0	1.191446	0	0	0.799905	1.374875	-0.84789	1.187692	0.475291	NaN	Low	1.767469	0.9821			
48	TCCTGGGCTCCAG	1.035827	0	22.27971	28.33965	3.479177	5.139665	1.039688	23.72353	5.872875	2.656087	1.082214	0.996036	1.658287	1.130225	1.970718	0.594486	1.191446	3.968552	1.098841	1.999764	5.572839	-1.36567	1.038485	0.186514	NaN	Low	8.029711	3.115967			
48	TCCTGGGCTCCAG	1.035827	3.018884	5.941255	1.297257	0	2.569832	0	2.372353	4.6983	0.885362	0	0.997177	1.506966	3.448756	0	0	3.968552	0	1.396622	1.747034	0.053086	1.011057	0.192528	NaN	Low	1.714895	1.799723				
48	TCCTGGGCTCCAG	2.071654	0	7.426569	0.980798	3.479177	0	2.079375	24.90787	1.174575	0.885362	2.164428	1.920072	6.650414	1.130225	3.941436	3.560914	1.191446	3.968552	0	2.399716	1.805901	-1.21096	0.977466	0.215239	NaN	Low	5.315572	2.296229			
48	TCCTGGGCTCCAG	1.035827	0	10.3972	12.97257	0	2.569832	1.039688	16.60647	0	1.770725	2.164428	0.996036	4.885857	0.376742	2.463397	5.11772	1.191446	2.645701	1.198811	0.159681	3.616511	-1.48975	1.048883	0.155818	NaN	Low	5.333768	1.899214			
48	TCCTGGGCTCCAG	0	1.485314	3.891771	0	0	0	0	7.117058	0	0	0	0.665145	0	0	0.594486	0	0	0	0.399953	0.707866	-0.60894	1.177204	0.604964	NaN	Low	0.854859	0.60513				
48	TTAGCCCGGGGG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.119986	1.59701	1.47847	0.280153	NaN	Low	0.059618	1.80354				
49	AAATGTCACCACT	1.035827	4.528326	1.485314	0	0	7.709497	15.95831	3.585829	2.34915	0.885362	16.2321	2.88018	2.99152	4.89764	0.492679	1.783457	39.3177	11.90562	23.07566	3.999575	7.221709	0.794723	0.986661	0.420545	NaN	Low	5.281451	9.316187			
49	TCCTGGGCTCCAG	8.286617	19.62275	0	7.783454	0	10.27933	4.159751	11.86376	8.232024	2.656087	6.164428	9.96035	7.316594	5.651124	7.93019	3.350372															













































