Appendix A

Appendices

The following tables and figures present the alignment results using Samtools for all samples analyzed.

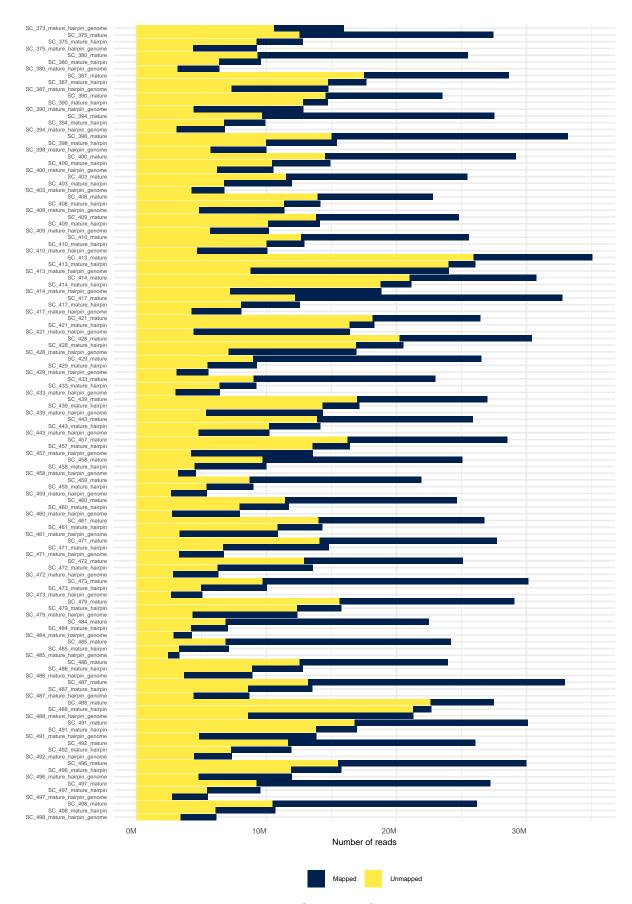


Figure A.1: Samtools: stats: Aligment Scores

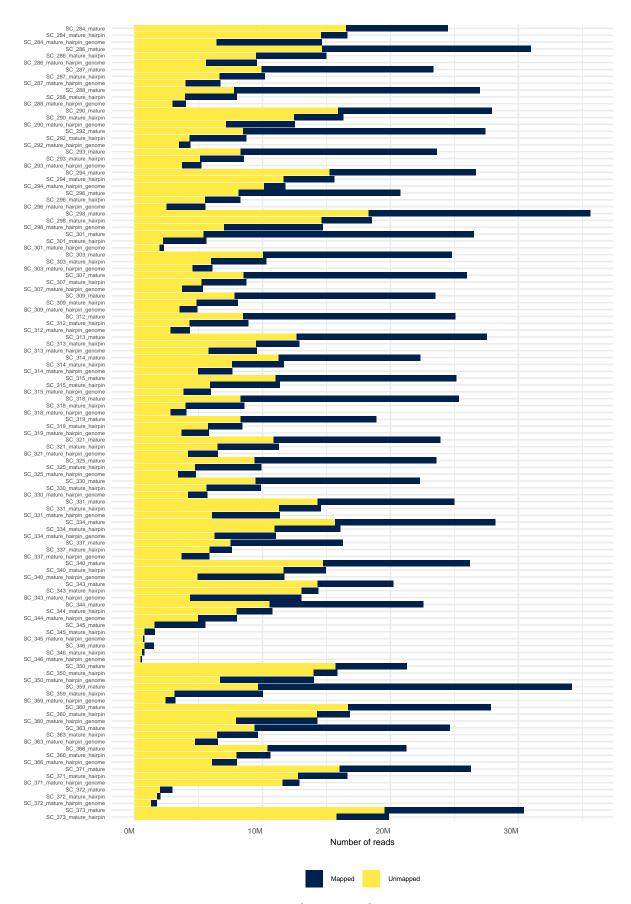


Figure A.2: Samtools: stats: Aligment Scores

Appendix B

Appendices

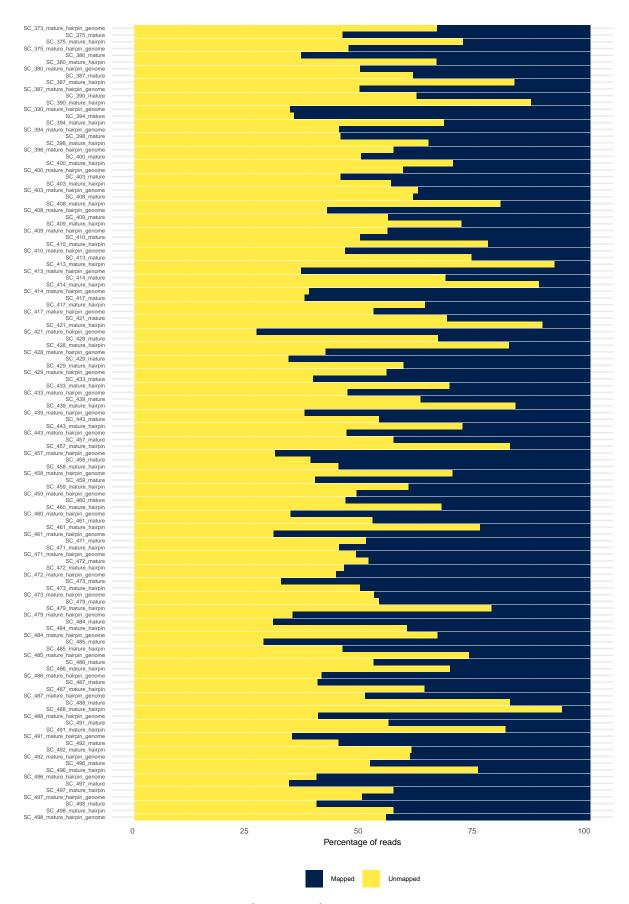


Figure B.1: Samtools: stats: Aligment Scores in percentages

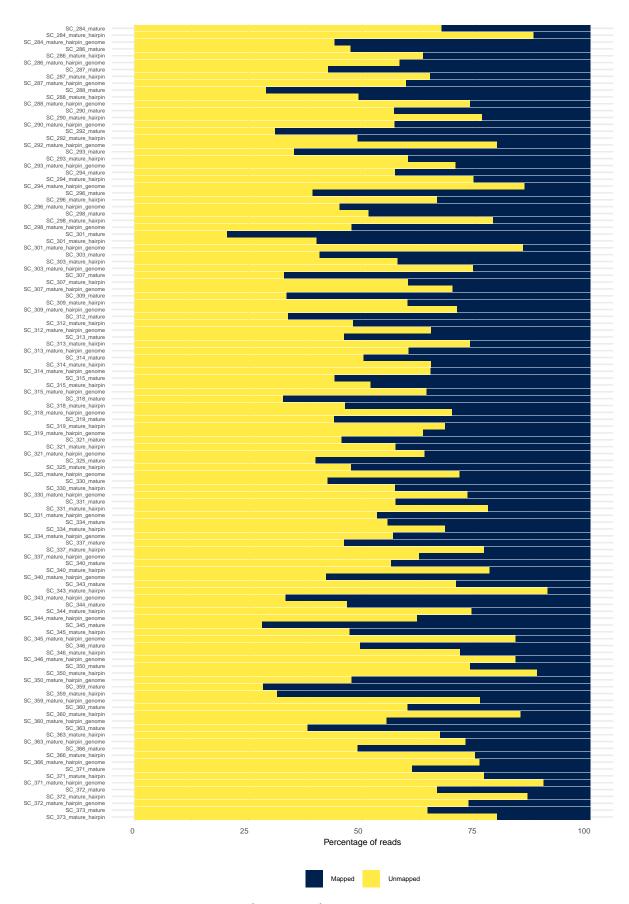


Figure B.2: Samtools: stats: Aligment Scores in percentages

Appendix C

Appendices

Table C.1: Alignment stats with Samtools (version 1.16.1)

Sample	Mapped reads	Unmapped reads	% Mapped	% Unmapped
SC_498_mature_hairpin_genome	2744597	3371428	44.875503	55.12450
SC_498_mature_hairpin	4617520	6060341	43.243867	56.75613
SC_498_mature	15766696	10440192	60.162412	39.83759
SC_497_mature_hairpin_genome	2735429	2724480	50.100267	49.89973
SC_497_mature_hairpin	4111775	5404453	43.208034	56.79197
SC_497_mature	18023058	9212014	66.175915	33.82409
SC_496_mature_hairpin_genome	7165355	4760107	60.084507	39.91549
SC_496_mature_hairpin	3903051	11870674	24.744003	75.25600
SC_496_mature	14490643	15486155	48.339529	51.66047
SC_492_mature_hairpin_genome	2893437	4415210	39.589229	60.41077
SC_492_mature_hairpin	4691937	7236935	39.332613	60.66739
SC_492_mature	14407144	11646032	55.298993	44.70101
SC_491_mature_hairpin_genome	9050120	4777210	65.450958	34.54904
SC_491_mature_hairpin	3153686	13788818	18.614049	81.38595
SC_491_mature	13351633	16738581	44.372011	55.62799
SC_488_mature_hairpin_genome	12744195	8553088	59.839534	40.16047
SC_488_mature_hairpin	1432302	21260358	6.311741	93.68826
SC_488_mature	4870620	22612182	17.722429	82.27757
SC_487_mature_hairpin_genome	4278599	4376546	49.434169	50.56583
SC_487_mature_hairpin	4927556	8578919	36.482917	63.51708
SC_487_mature	19747408	13190175	59.954029	40.04597
SC_486_mature_hairpin_genome	5248198	3638952	59.053780	40.94622
SC_486_mature_hairpin	3940979	8853917	30.801180	69.19882
SC_486_mature	11412197	12540551	47.644625	52.35537
SC_485_mature_hairpin_genome	876498	2405472	26.706460	73.29354
SC_485_mature_hairpin	3870100	3248134	54.368822	45.63118
SC_485_mature	17333731	6838753	71.708522	28.29148
SC_484_mature_hairpin_genome	1432239	2829136	33.609786	66.39021
SC_484_mature_hairpin	2820206	4190029	40.229835	59.77016
SC_484_mature	15650928	6831574	69.613818	30.38618
SC_479_mature_hairpin_genome	8108405	4281557	65.443340	34.55666
SC_479_mature_hairpin	3431530	12337417	21.761313	78.23869
SC_479_mature	13487647	15581922	46.397822	53.60218

SC_473_mature_hairpin_genome SC_473_mature_hairpin	2392675 5073951	2642806 4948371	47.516315 50.626502	52.48369 49.37350
SC_473_mature SC_472_mature_hairpin_genome SC_472_mature_hairpin	20467672 3511799 7331665	9676396 2775384 6217497	67.899502 55.856478 54.111575	32.10050 44.14352 45.88842
SC_472_mature SC_471_mature_hairpin_genome	12218247 3453391	12885627 3254426	48.670763 51.483083	51.32924 48.51692
SC_471_mature_hairpin SC_471_mature	8164995 13664246	6641090 14052468	55.146212 49.299661	44.85379 50.70034
SC_461_mature_hairpin_genome	7563990	3304204	69.597488	30.40251
SC_461_mature_hairpin SC_461_mature	3469039 12790056	10813155 13974337	24.289258 47.787581	75.71074 52.21242
SC_460_mature_hairpin_genome	5230030	2708863	65.878580	34.12142
SC_460_mature_hairpin	3835718	7903166	32.675321	67.32468
SC_460_mature	13237348	11399583	53.729695	46.27030
SC_459_mature_hairpin_genome	2783611	2639003	51.333379	48.66662
SC_459_mature_hairpin	3582548	5378163	39.980622	60.01938
SC_459_mature	13242432	8680672	60.404001	39.59600
SC_458_mature_hairpin_genome	1375038	3171515	30.243527	69.75647
SC_458_mature_hairpin	5505378	4459196	55.249507	44.75049
SC_458_mature	15408741	9676346	61.425902	38.57410
SC_457_mature_hairpin_genome	9385631	4177300	69.200610	30.79939
SC_457_mature_hairpin	2909240	13515507	17.712541	82.28746
SC_457_mature	12335871	16210908	43.212830	56.78717
SC_443_mature_hairpin_genome	5468937	4747805	53.529168	46.47083
SC_443_mature_hairpin	3974281	10179572	28.079146	71.92085
SC_443_mature	12034498	13864526	46.466994	53.53301
SC_439_mature_hairpin_genome	9000706	5346326	62.735666	37.26433
SC_439_mature_hairpin	2826157	14310067	16.492297	83.50770
SC_439_mature	10058851	16933174	37.266011	62.73399
SC_433_mature_hairpin_genome	3412034	2991006	53.287720	46.71228
SC_433_mature_hairpin	2852106	6362163	30.953145	69.04686
SC_433_mature	13979932	8989589	60.862967	39.13703
SC_429_mature_hairpin_genome	2465541	3040548	44.778444	55.22156
SC_429_mature_hairpin	3799870	5450107	41.079778	58.92022
SC_429_mature	17580501	8947853	66.270606	33.72939
SC_428_mature_hairpin_genome	9835883	7078888	58.149667	41.85033
SC_428_mature_hairpin	3667182	16868667	17.857465	82.14254
SC_428_mature	10167817	20226533	33.452984	66.54702
SC_421_mature_hairpin_genome	12039297	4382042	73.314953	26.68505
SC_421_mature_hairpin	1921054	16367524	10.504119 31.500205	89.49588
SC_421_mature	8334983	18125108		68.49979
SC_417_mature_hairpin_genome	3840665	4230821	47.583122	52.41688
SC_417_mature_hairpin	4558184	8009437	36.269267	63.73073
SC_417_mature	20566865	12189260	62.787845	37.21216
SC_414_mature_hairpin_genome	11626154	7192202	61.780923	38.21908
SC_414_mature_hairpin	2384522	18764466	11.274875	88.72512
SC_414_mature	9773314	20975321	31.784546	68.21545
SC_413_mature_hairpin_genome	15273686	8755282	63.563637	36.43636
SC_413_mature_hairpin	2075044	23986778	7.962007	92.03799
SC_413_mature SC_410_mature_hairpin_genome	9149532 5421609	25922290 4646857	26.087986 53.847418	73.91201 46.15258
SC_410_mature_hairpin	2900623	9994884	22.493284	77.50672

SC_410_mature	12919955	12648790	50.530267	49.46973
SC_409_mature_hairpin_genome	4530560	5646158	44.518871	55.48113
SC_409_mature_hairpin	3999053	10117341	28.329140	71.67086
SC_409_mature	11038048	13776426	44.482297	55.51770
SC_408_mature_hairpin_genome	6583428	4797782	57.844711	42.15529
1 0				
SC_408_mature_hairpin	2790714	11336814	19.753732	80.24627
SC_408_mature	8876025	13926824	38.925070	61.07493
SC_403_mature_hairpin_genome	2558149	4200888	37.847833	62.15217
SC_403_mature_hairpin	5223502	6717196	43.745366	56.25463
SC_403_mature	13969652	11492819	54.863693	45.13631
SC_400_mature_hairpin_genome	4330659	6183592	41.188469	58.81153
SC_400_mature_hairpin	4497625	10417103	30.155595	69.84440
SC_400_mature	14697933	14468745	50.392894	49.60711
SC_398_mature_hairpin_genome	4324574	5666444	43.284618	56.71538
SC_398_mature_hairpin	5469763	9937686	35.500770	64.49923
SC_398_mature	18207151	14977889	54.865539	45.13446
SC_394_mature_hairpin_genome	3740196	3041386	55.152264	44.84774
	3180039			
SC_394_mature_hairpin SC_394_mature	17895589	6725726 9632687	32.102912 65.008027	67.89709 34.99197
	17093309	9032007	03.008027	
SC_390_mature_hairpin_genome	8452470	4373750	65.899930	34.10007
SC_390_mature_hairpin	1923806	12776493	13.086849	86.91315
SC_390_mature	8992467	14532067	38.225909	61.77409
SC_387_mature_hairpin_genome	7490021	7285833	50.690952	49.30905
SC_387_mature_hairpin	2952557	14726708	16.700677	83.29932
SC_387_mature	11167772	17470973	38.995326	61.00467
SC_380_mature_hairpin_genome	3221221	3148514	50.570722	49.42928
SC_380_mature_hairpin	3235044	6323416	33.844824	66.15518
SC_380_mature	16180366	9298625	63.504736	36.49526
SC_375_mature_hairpin_genome	4917429	4347342	53.076638	46.92336
SC_375_mature_hairpin	3585422	9209182	28.022923	71.97708
SC_375_mature	14945565	12507898	54.439635	45.56037
SC_373_mature_hairpin_genome	5364365	10568678	33.668176	66.33182
SC_373_mature_hairpin	4069070	15784794	20.495104	79.50490
SC_373_mature	10899376	19530932	35.817501	64.18250
SC_372_mature_hairpin_genome	466361	1277379	26.744870	73.25513
SC_372_mature_hairpin	278775	1729919	13.878421	86.12158
SC_372_mature	1000037	1972216	33.645756	66.35424
SC_371_mature_hairpin_genome	1323766	11554287	10.279240	89.72076
SC_371_mature_hairpin	3884222	12742372	23.361501	76.63850
SC_371_mature	10311186	15986343	39.209714	60.79029
SC_366_mature_hairpin_genome	1950351	6049547	24.379698	75.62030
		7946340		
SC_366_mature_hairpin	2692286		25.306708	74.69329
SC_366_mature	10855919	10385584	51.107113	48.89289
SC_363_mature_hairpin_genome	1785360	4719578	27.446226	72.55377
SC_363_mature_hairpin	3172307	6443801	32.989511	67.01049
SC_363_mature	15283542	9347917	62.048870	37.95113
SC_360_mature_hairpin_genome	6393637	7899608	44.731879	55.26812
SC_360_mature_hairpin	2586814	14249692	15.364316	84.63568
SC_360_mature	11191408	16650498	40.196271	59.80373
SC_359_mature_hairpin_genome	772978	2413120	24.260961	75.73904
SC_359_mature_hairpin	6897759	3123516	68.831152	31.16885
SC_359_mature	24559803	9623594	71.847169	28.15283
SC_350_mature_hairpin_genome	7348569	6670062	52.420019	47.57998
SC_350_mature_hairpin	1865905	13978181	11.776665	88.22333
oc_oo_mature_nan pm	1003703	137/0101	11.//0003	00.22333

SC_350_mature SC_346_mature_hairpin_genome	5626041 91722	15675998 465433	26.410810 16.462564	73.58919 83.53744
SC_346_mature_hairpin	220717	550982	28.601437	71.39856
SC_346_mature	770483	751722	50.616244	49.38376
SC_345_mature_hairpin_genome	127582	648916	16.430435	83.56956
SC_345_mature_hairpin	849937	757561	52.873285	47.12671
SC_345_mature	3988391	1545899	72.066896	27.93310
SC_344_mature_hairpin_genome	3046790	4962062	38.042781	61.95722
SC_344_mature_hairpin	2812683	7958051	26.114126	73.88587
SC_344_mature	12059312	10526656	53.392938	46.60706
SC_343_mature_hairpin_genome	8740107	4309858	66.974180	33.02582
SC_343_mature_hairpin	1363224	13018072	9.479146	90.52085
SC_343_mature	5966144	14278700	29.469943	70.53006
SC_340_mature_hairpin_genome	6785632	4908122	58.027833	41.97217
SC_340_mature_hairpin	3322263	11635484	22.210985	77.78901
SC_340_mature	11452686	14734344	43.734192	56.26581
SC_337_mature_hairpin_genome	2208061	3653634	37.669326	62.33067
SC_337_mature_hairpin	1772336	5826603	23.323467	76.67653
SC_337_mature	8812419	7468275	54.128030	45.87197
SC_334_mature_hairpin_genome	4784762	6247131	43.372085	56.62792
SC_334_mature_hairpin	5136883	10932584	31.966729	68.03327
SC_334_mature	12556898	15637192	44.537341	55.46266
SC_331_mature_hairpin_genome	5319405	6041206	46.823230	53.17677
SC_331_mature_hairpin	3271056	11288070	22.467393	77.53261
SC_331_mature	10694971	14296881	42.793831	57.20617
SC_330_mature_hairpin_genome	1533651	4154713	26.961197	73.03880
SC_330_mature_hairpin	4228162	5616625	42.948232	57.05177
SC_330_mature	12882718	9425175	57.749596	42.25040
SC_325_mature_hairpin_genome	1372170	3391845	28.802806	71.19719
SC_325_mature_hairpin	5215807	4702310	52.588682	47.41132
SC_325_mature	14224823	9368454	60.291849	39.70815
SC_321_mature_hairpin_genome	2377820	4148758	36.432875	63.56713
SC_321_mature_hairpin	4819712	6455622	42.745625	57.25437
SC_321_mature	13052914	10840388	54.630013	45.36999
SC_319_mature_hairpin_genome	2131379	3668909	36.746089	63.25391
SC_319_mature_hairpin	2694449	5735368	31.963316	68.03668
SC_319_mature	10635070	8258957	56.288000	43.71200
SC_318_mature_hairpin_genome	1221577	2801202	30.366495	69.63350
SC_318_mature_hairpin SC_318_mature	4627372 17082695	3959025 8248130	53.891894 67.438368	46.10811 32.56163
SC_315_mature_hairpin_genome	2138741	3809122	35.958142	64.04186
SC_315_mature_hairpin	5488459	5874581	48.300974	51.69903
SC_315_mature	14134369	11010585	56.211552	43.78845
SC_314_mature_hairpin_genome	2679436	4960119	35.073195	64.92681
SC_314_mature_hairpin	4087514	7583152	35.023828	64.97617
SC_314_mature	11126072	11233287	49.760246	50.23975
SC_313_mature_hairpin_genome	3825743	5754935	39.931861	60.06814
SC_313_mature_hairpin	3405941	9473724	26.444329	73.55567
SC_313_mature	14897240	12645169	54.088370	45.91163
SC_312_mature_hairpin_genome	1507700	2794434	35.045398	64.95460
SC_312_mature_hairpin	4644281	4260306	52.156052	47.84395
SC_312_mature	16636872	8446482	66.326345	33.67365
SC_309_mature_hairpin_genome	1441141	3483122	29.266126	70.73387
SC_309_mature_hairpin	3241007	4840223	40.105368	59.89463

SC_309_mature	15686563	7816291	66.743226	33.25677
SC_307_mature_hairpin_genome	1610746	3703775	30.308395	69.69161
SC_307_mature_hairpin	3494741	5227099	40.068850	59.93115
SC_307_mature	17469805	8501677	67.265337	32.73466
SC_303_mature_hairpin_genome	1565736	4501527	25.806299	74.19370
SC_303_mature_hairpin	4359563	5942747	42.316364	57.68364
SC_303_mature	14743705	10033956	59.504023	40.49598
SC_301_mature_hairpin_genome	338174	1945224	14.810121	85.18988
SC_301_mature_hairpin	3363956	2227328	60.164284	39.83572
SC_301_mature	21145107	5369457	79.749028	20.25097
SC_298_mature_hairpin_genome	7712913	6981737	52.487899	47.51210
SC_298_mature_hairpin	3975972	14579438	21.427562	78.57244
SC_298_mature	17360005	18269021	48.724332	51.27567
SC_296_mature_hairpin_genome	3048365	2484878	55.091833	44.90817
SC_296_mature_hairpin	2785017	5476804	33.709481	66.29052
SC_296_mature	12678516	8099488	61.018931	38.98107
SC_294_mature_hairpin_genome	1712011	10084572	14.512770	85.48723
SC_294_mature_hairpin	4005534	11624574	25.627040	74.37296
SC_294_mature	11423661	15233093	42.854659	57.14534
SC_293_mature_hairpin_genome	1549409	3678267	29.638581	70.36142
SC_293_mature_hairpin	3421304	5114103	40.083666	59.91633
SC_293_mature	15368091	8246741	65.078130	34.92187
SC_292_mature_hairpin_genome	895545	3466828	20.528850	79.47115
SC_292_mature_hairpin	4472883	4279211	51.106432	48.89357
SC_292_mature	18956815	8442108	69.188176	30.81182
SC_290_mature_hairpin_genome	5386944	7134399	43.022094	56.97791
SC_290_mature_hairpin	3892693	12447347	23.823032	76.17697
SC_290_mature	12024349	15894369	43.069130	56.93087
SC_288_mature_hairpin_genome	1061454	2947261	26.478660	73.52134
SC_288_mature_hairpin	4069560	3918737	50.944025	49.05598
SC_288_mature	19216109	7764252	71.222579	28.77742
SC_287_mature_hairpin_genome	2708510	3975337	40.523220	59.47678
SC_287_mature_hairpin	3584600	6605372	35.177722	64.82228
SC_287_mature	13471280	9895071	57.652476	42.34752
SC_286_mature_hairpin_genome	4007433	5551495	41.923456	58.07654
SC_286_mature_hairpin	5515837	9474968	36.794802	63.20520
SC_286_mature	16329833	14653293	52.705570	47.29443
SC_284_mature_hairpin_genome	8218701	6404276	56.204021	43.79598
SC_284_mature_hairpin	2085590	14554741	12.533344	87.46666
SC_284_mature	8003734	16508641	32.651809	67.34819