

Supplemental Table S1. Summary of the RNA sequencing data of Ranunculales plants.

Sample ID	Family	Species	clean data reads	clean data bp	GC %
00132	Menispermaceae	Diploclisia affinis	43,439,248	6,515,887,200	52.58
00210	Menispermaceae	Stephania longa	43,667,552	6,550,132,800	44.84
00303	Lardizabalaceae	Akebia trifoliata subsp. australis	42,792,680	6,418,902,000	46.56
00392	Ranunculaceae	Anemone hupehensis	48,241,622	7,236,243,300	44.71
00626	Menispermaceae	Tinospora sagittata	42,843,666	6,426,549,900	43.91
00888	Menispermaceae	Tinospora sinensis	43,621,418	6,543,212,700	44.83
00910	Berberidaceae	Berberis atrocarpa	43,421,160	6,513,174,000	47.18
01159	Menispermaceae	Diploclisia glaucescens	44,500,866	6,675,129,900	43.28
01205	Berberidaceae	Mahonia bodinieri	42,547,956	6,382,193,400	43.09
01207	Ranunculaceae	Clematis apiifolia	43,187,830	6,478,174,500	45.22
07839	Ranunculaceae	Cimicifuga japonica	44,287,884	6,643,182,600	44.69
07886	Berberidaceae	Dysosma delavayi	49,718,210	7,457,731,500	44.99
07887	Ranunculaceae	Beesia calthifolia	50,616,300	7,592,445,000	43.8
07897	Berberidaceae	Berberis ziyunensis	49,209,666	7,381,449,900	44.63
07963	Berberidaceae	Epimedium myrianthum	49,757,832	7,463,674,800	43.68
07968	Berberidaceae	Epimedium boreali-guizhouense	50,416,178	7,562,426,700	45.15
07969	Berberidaceae	Epimedium simplicifolium	47,146,234	7,071,935,100	43.99
07970	Berberidaceae	Epimedium baojingense	51,724,408	7,758,661,200	43.91
07985	Berberidaceae	Mahonia oiwakensis	46,227,938	6,934,190,700	46.72
08000	Berberidaceae	Dysosma difformis	49,087,998	7,363,199,700	45.6
08013	Lardizabalaceae	Stauntonia obovatifoliola subsp. Urophylla	49,127,604	7,369,140,600	44.8
08047	Berberidaceae	Berberis cavaleriei	48,987,950	7,348,192,500	43.72
08059	Ranunculaceae	Clematis puberula var. ganpiniana	48,887,170	7,333,075,500	43.48
08105	Menispermaceae	Stephania epigaea	49,780,758	7,467,113,700	45.08
08121	Ranunculaceae	Clematis terniflora var. terniflora	48,934,328	7,340,149,200	45.35
08177	Berberidaceae	Mahonia eurybracteata	46,717,660	7,007,649,000	45.47
08256	Ranunculaceae	Anemone vitifolia	46,703,122	7,005,468,300	45.61
08260	Berberidaceae	Berberis kunmingensis	50,427,640	7,564,146,000	44.7
08514A	Berberidaceae	Epimedium davidii	49,903,370	7,485,505,500	43.46
08580A	Ranunculaceae	Asteropyrum cavaleriei	49,510,296	7,426,544,400	45.32
08734A	Berberidaceae	Epimedium leptorrhizum	93,459,458	14,018,918,700	44.91
08771A	Ranunculaceae	Anemone tomentosa	110,861,950	16,629,292,500	43.42
08784	Lardizabalaceae	Holboellia grandiflora	51,173,184	7,675,977,600	45.15
08889A	Ranunculaceae	Clematis lasiandra	51,394,996	7,709,249,400	44.64
08891A	Ranunculaceae	Ranunculus ficariifolius	49,219,164	7,382,874,600	43.66
08894A	Berberidaceae	Berberis silvicola	51,242,394	7,686,359,100	45.6
08895A	Berberidaceae	Berberis zanlanscianensis	50,975,612	7,646,341,800	42.94
08914A	Berberidaceae	Berberis liophylla	50,600,682	7,590,102,300	44.55
08925A	Ranunculaceae	Clematis uncinata	167,523,832	25,128,574,800	44.48
08928A	Lardizabalaceae	Sinofranchetia chinensis	50,871,384	7,630,707,600	44.59
08951A	Berberidaceae	Mahonia decipiens	49,187,456	7,378,118,400	44.34
09032A	Ranunculaceae	Clematis kweichowensis	49,801,046	7,470,156,900	44.29
09154A	Berberidaceae	Mahonia napaulensis	49,052,956	7,357,943,400	44.46
09155A	Berberidaceae	Mahonia polyodonta	137,576,208	20,636,431,200	45.81
09161A	Berberidaceae	Mahonia shenii	49,540,012	7,431,001,800	44.54
09265A	Berberidaceae	Mahonia gracilipes	48,739,370	7,310,905,500	44.65
09334A	Ranunculaceae	Anemone flaccida	49,535,892	7,430,383,800	44.23
09383	Berberidaceae	Epimedium brachyrrhizum	149,181,966	22,377,294,900	44.31
09404	Ranunculaceae	Anemone begoniifolia	48,716,894	7,307,534,100	48.95
09679	Ranunculaceae	Thalictrum przewalskii	47,513,844	7,127,076,600	44.57
09688	Berberidaceae	Mahonia bracteolata	52,347,036	7,852,055,400	43.82
09701	Berberidaceae	Berberis thunbergii	48,875,314	7,331,297,100	41.7
09705	Ranunculaceae	Clematis peterae	49,752,642	7,462,896,300	44.2
09714	Berberidaceae	Berberis sublevis	50,222,668	7,533,400,200	43.66
09724	Berberidaceae	Mahonia subimbricata	49,338,392	7,400,758,800	44.92
09747	Berberidaceae	Epimedium epsteinii	48,515,156	7,277,273,400	44.53
09748	Berberidaceae	Epimedium dolichostemon	50,521,988	7,578,298,200	43.61
09751	Berberidaceae	Epimedium stellulatum	52,513,088	7,876,963,200	44.68
09757	Berberidaceae	Berberis integripetala	49,361,364	7,404,204,600	44.54
09766	Berberidaceae	Epimedium sagittatum var. glabratum	48,984,354	7,347,653,100	45.99
09767	Berberidaceae	Epimedium chlorandrum	52,617,326	7,892,598,900	43.95
09772	Berberidaceae	Epimedium fargesii	50,606,500	7,590,975,000	44.78
09773	Berberidaceae	Epimedium ecalcaratum	50,606,501	7,757,469,600	45.55
09823	Papaveraceae	Stylophorum lasiocarpum	45,964,060	6,894,609,000	44.65
09826	Ranunculaceae	Paeonia anomala subsp. veitchii	51,059,202	7,658,880,300	44.72
10378A	Berberidaceae	Mahonia brevircama	50,761,294	7,614,194,100	43.85

10465A	Papaveraceae	<i>Eomecon chionantha</i>	52,120,628	7,818,094,200	43.21
10478A	Berberidaceae	<i>Epimedium lishihchenii</i>	48,444,052	7,266,607,800	44.11
10499A	Berberidaceae	<i>Dysosma versipellis</i>	45,263,528	6,789,529,200	45.15
10583A	Ranunculaceae	<i>Thalictrum fortunei</i>	205,414,630	30,812,194,500	44.16
10661A	Lardizabalaceae	<i>Stauntonia brunoniana</i>	141,923,702	21,288,555,300	41.89
10669A	Ranunculaceae	<i>Thalictrum faberi</i>	119,942,822	17,991,423,300	43.57
10681A	Ranunculaceae	<i>Aconitum finetianum</i>	101,794,496	15,269,174,400	42.12
10742A	Lardizabalaceae	<i>Stauntonia chinensis</i>	175,974,892	26,396,233,800	45.4
11097A	Ranunculaceae	<i>Aquilegia ecalcarata</i>	49,568,270	7,435,240,500	43.78
11110A	Ranunculaceae	<i>Aquilegia yabeana</i>	164,877,404	24,731,610,600	41.96
11113A	Ranunculaceae	<i>Helleborus thibetanus</i>	159,543,744	23,931,561,600	42.21
11140A	Papaveraceae	<i>Meconopsis quintuplinervia</i>	179,896,734	26,984,510,100	44.74
11264A	Berberidaceae	<i>Berberis pruinosa</i>	170,566,534	25,584,980,100	41.97
11296A	Berberidaceae	<i>Berberis lempergiana</i>	49,622,888	7,443,433,200	43.78
11326A	Ranunculaceae	<i>Thalictrum fargesii</i>	47,578,184	7,136,727,600	43.88
11354B	Lardizabalaceae	<i>Stauntonia yaoshanensis</i>	49,772,858	7,465,928,700	41.61
11374B	Ranunculaceae	<i>Clematis henryi</i>	49,053,518	7,358,027,700	43.43
11522A	Ranunculaceae	<i>Clematis puberula</i> var. <i>tenuisepala</i>	48,605,118	7,290,767,700	44.37
11539A	Ranunculaceae	<i>Thalictrum minus</i> var. <i>hypoleucum</i>	101,343,510	15,201,526,500	45.58
11578B	Ranunculaceae	<i>Dichocarpum dalzielii</i>	95,431,988	14,314,798,200	42.22
11648B	Menispermaceae	<i>Pericampylus glaucus</i>	48,398,502	7,259,775,300	40.98
12140A	Menispermaceae	<i>Stephania dielsiana</i>	49,037,488	7,355,623,200	44.14
12225A	Menispermaceae	<i>Cyclea hypoglaucua</i>	45,759,648	6,863,947,200	45.75
12267A	Ranunculaceae	<i>Clematis tinghuensis</i>	49,627,386	7,444,107,900	45.79
12310A	Ranunculaceae	<i>Coptis chinensis</i> var. <i>brevisepala</i>	49,492,116	7,423,817,400	44.64
12517B	Menispermaceae	<i>Stephania hainanensis</i>	128,211,170	19,231,675,500	44.92
12596A	Ranunculaceae	<i>Clematis aethusifolia</i>	48,682,292	7,302,343,800	46.55
12597A	Ranunculaceae	<i>Thalictrum petaloideum</i>	115,559,694	17,333,954,100	45.05
12603A	Ranunculaceae	<i>Aconitum kusnezoffii</i>	96,397,382	14,459,607,300	42.35
12619A	Berberidaceae	<i>Berberis amurensis</i>	106,374,430	15,956,164,500	45.51
12621A	Ranunculaceae	<i>Aconitum barbatum</i> var. <i>puberulum</i>	68,320,128	10,248,019,200	44.35
12623A	Ranunculaceae	<i>Clematis hexapetala</i>	97,501,290	14,625,193,500	45.61
12652A	Berberidaceae	<i>Berberis poiretii</i>	118,745,410	17,811,811,500	45.19
12674A	Ranunculaceae	<i>Clematis sibirica</i> var. <i>ochotensis</i>	80,932,246	12,139,836,900	44.17
12685A	Ranunculaceae	<i>Anemone cathayensis</i>	106,875,436	16,031,315,400	45.24
12694A	Ranunculaceae	<i>Trollius chinensis</i>	98,383,226	14,757,483,900	43.91
12695A	Ranunculaceae	<i>Aconitum leucostomum</i> var. <i>hopeiense</i>	98,862,024	14,829,303,600	48.16
12699A	Papaveraceae	<i>Corydalis speciosa</i>	109,485,054	16,422,758,100	46.11
12730A	Ranunculaceae	<i>Thalictrum shensiense</i>	93,454,848	14,018,227,200	43.74
12731A	Ranunculaceae	<i>Aconitum cannabifolium</i>	134,884,210	20,232,631,500	42.07
12739A	Papaveraceae	<i>Corydalis ophiocarpa</i>	112,112,932	16,816,939,800	45.31
12745A	Papaveraceae	<i>Hylomecon japonica</i>	81,114,854	12,167,228,100	43.13
12746A	Ranunculaceae	<i>Ranunculus chinensis</i>	77,808,676	11,671,301,400	42.93
12748A	Ranunculaceae	<i>Clematis shensiensis</i>	104,439,748	15,665,962,200	42.64
12753A	Ranunculaceae	<i>Adonis sutchuenensis</i>	115,750,714	17,362,607,100	45.6
12754A	Papaveraceae	<i>Stylophorum sutchuenense</i>	96,950,534	14,542,580,100	44.61
12779A	Berberidaceae	<i>Berberis feddeana</i>	112,114,748	16,817,212,200	43.15
12787A	Papaveraceae	<i>Meconopsis oliveriana</i>	83,259,592	12,488,938,800	44.95
12794A	Ranunculaceae	<i>Ranunculus petrogeiton</i>	99,296,358	12,894,453,700	42.4
12803A	Papaveraceae	<i>Corydalis linarioides</i>	110,989,218	16,648,382,700	43.34
12807A	Circaeasteraceae	<i>Kingdonia uniflora</i>	92,372,702	13,855,905,300	42.88
12823A	Papaveraceae	<i>Dicranostigma leptopodum</i>	123,949,684	18,592,452,600	44.23
12876A	Ranunculaceae	<i>Trollius japonicus</i>	113,591,490	17,038,723,500	43.8
12909A	Berberidaceae	<i>Berberis wilsoniae</i>	95,528,882	14,329,332,300	45.35
12919A	Ranunculaceae	<i>Thalictrum delavayi</i>	112,142,836	16,821,425,400	44.88
12926A	Ranunculaceae	<i>Thalictrum bouffordii</i>	121,402,038	18,210,305,700	42.22
12960A	Ranunculaceae	<i>Thalictrum nepalense</i>	117,314,958	17,597,243,700	42.38
12974A	Ranunculaceae	<i>Caltha scaposa</i>	79,226,638	11,883,995,700	42.46
12985A	Ranunculaceae	<i>Thalictrum finetii</i>	74,930,552	11,239,582,800	44.4
12998A	Ranunculaceae	<i>Batrachium bungei</i>	77,484,624	11,622,693,600	42.12
12999A	Ranunculaceae	<i>Ranunculus tanguticus</i>	120,291,628	18,043,744,200	44.09
13004A	Papaveraceae	<i>Corydalis curviflora</i>	76,582,474	11,487,371,100	43.13
13008A	Ranunculaceae	<i>Aconitum scaposum</i>	79,076,046	11,861,406,900	42.84
13009A	Ranunculaceae	<i>Thalictrum uncatum</i>	127,077,844	19,061,676,600	45.3
13016A	Berberidaceae	<i>Sinopodophyllum hexandrum</i>	73,897,932	11,084,689,800	42.19
13031A	Ranunculaceae	<i>Clematis rehderiana</i>	91,630,312	13,744,546,800	44
13062A	Ranunculaceae	<i>Aconitum gymnandrum</i>	95,114,624	14,267,193,600	46.2
13063A	Ranunculaceae	<i>Clematis tangutica</i>	80,525,292	12,078,793,800	45.76
13066A	Ranunculaceae	<i>Thalictrum atriplex</i>	100,052,752	15,007,912,800	45.29

13088A	Ranunculaceae	Aquilegia rockii	93,607,290	14,041,093,500	42.3
13089A	Ranunculaceae	Delphinium tatsienense	122,109,104	18,316,365,600	42.18
13097A	Ranunculaceae	Cimicifuga foetida var. foliolosa	94,056,532	14,108,479,800	46.09
13116A	Ranunculaceae	Ranunculus ternatus	94,222,146	14,133,321,900	45.03
13134A	Ranunculaceae	Thalictrum cultratum	76,030,098	11,404,514,700	43.51
13137A	Ranunculaceae	Caltha palustris var. barthei	93,381,300	14,007,195,000	42.28
13139A	Ranunculaceae	Aconitum crassiflorum	132,357,904	19,853,685,600	45.43
13140A	Ranunculaceae	Aconitum pilopetalum	104,832,410	15,724,861,500	45.85
13143A	Ranunculaceae	Aconitum brunneum	106,822,042	16,023,306,300	45.36
13163A	Papaveraceae	Corydalis pseudosibirica	128,801,772	19,320,265,800	45.69
13165A	Ranunculaceae	Aconitum pendulum	91,831,814	13,774,772,100	43.37
13182A	Papaveraceae	Meconopsis racemosa	88,023,322	13,203,498,300	45.44
13196A	Papaveraceae	Corydalis pseudotongolensis	84,687,738	12,703,160,700	41.67
13202A	Ranunculaceae	Thalictrum foetidum	83,633,100	12,544,965,000	43.35
13214A	Papaveraceae	Corydalis adunca	85,914,240	12,887,136,000	39.87
13216A	Ranunculaceae	Thalictrum smithii	82,689,266	12,403,389,900	42.74
13271A	Berberidaceae	Berberis gyalatica	77,312,076	11,596,811,400	41.7
59	Menispermaceae	Stephania kwangsiensis	96,660,048	14,499,007,200	44.55
BN01259	Menispermaceae	Stephania japonica	48,873,496	7,331,024,400	45.66
BN01422	Menispermaceae	Cocculus laurifolius	50,365,996	7,554,899,400	44.26
BN01692	Menispermaceae	Fibraurea recisa	52,372,010	7,855,801,500	44.35
BN01829	Ranunculaceae	Clematis parviloba	50,085,970	7,512,895,500	44.79
BN01830	Menispermaceae	Arcangelisia gusanlung	49,982,776	7,497,416,400	44.93
BN01845	Ranunculaceae	Clematis subumbellata	48,418,490	7,262,773,500	44.94
BN01846	Menispermaceae	Cyclea polypetala	52,167,246	7,825,086,900	44.6
BN01858	Ranunculaceae	Clematis menglaensis	49,942,426	7,491,363,900	44.73
BN01859	Ranunculaceae	Clematis chingii	49,745,080	7,461,762,000	45.07
BN01922	Menispermaceae	Eleutharrhena macrocarpa	50,820,732	7,623,109,800	44.4
CC00440A	Ranunculaceae	Pulsatilla chinensis	49,268,738	7,390,310,700	44.99
CC00446A	Ranunculaceae	Ranunculus repens	49,594,634	7,439,195,100	42.71
CC00479A	Papaveraceae	Dicentra spectabilis	46,097,328	6,914,599,200	42.26
CC00494A	Ranunculaceae	Aconitum coreanum	49,515,808	7,427,371,200	44.44
CC00505A	Ranunculaceae	Pulsatilla cernua	48,445,178	7,266,776,700	45.4
CD00559	Berberidaceae	Mahonia retinervis	48,789,082	7,318,362,300	44.28
CQ00662	Papaveraceae	Macleaya cordata	48,291,012	7,243,651,800	43.89
CQ00773	Berberidaceae	Berberis virgetorum	46,098,534	6,914,780,100	43.98
CQ00776	Berberidaceae	Berberis julianae	43,791,520	6,568,728,000	44.75
CQ00784	Ranunculaceae	Aconitum sinomontanum	49,671,264	7,450,689,600	44.6
CQ00787	Papaveraceae	Chelidonium majus	50,242,228	7,536,334,200	44
CQ00790	Ranunculaceae	Coptis chinensis	46,864,328	7,029,649,200	42.55
CQ00791	Papaveraceae	Corydalis tomentella	50,181,522	7,527,228,300	42.89
CQ00838	Papaveraceae	Corydalis sheareri	50,077,810	7,511,671,500	43.39
CQ00918	Berberidaceae	Berberis gagnepainii	49,577,832	7,436,674,800	44.465
CQ00921	Papaveraceae	Papaver rhoeas	50,154,374	7,523,156,100	42.78
CQ00940	Menispermaceae	Cocculus orbiculatus	50,450,508	7,567,576,200	44.84
CQ00952	Berberidaceae	Epimedium sagittatum	51,701,938	7,755,290,700	44.41
CQ00966	Ranunculaceae	Semiaquilegia adoxoides	48,107,190	7,216,078,500	42.17
CQ01025	Berberidaceae	Mahonia fordii	52,046,506	7,806,975,900	44.44
CQ01036	Berberidaceae	Mahonia sheridaniana	49,851,888	7,477,783,200	44.105
CQ01174	Menispermaceae	Stephania cephalantha	49,313,012	7,396,951,800	45.05
CS00127	Berberidaceae	Mahonia eurybracteata subsp. ganpinensis	43,660,832	6,549,124,800	43.97
CS00128	Berberidaceae	Berberis soulieana	42,006,206	6,300,930,900	44.11
CS00131	Berberidaceae	Mahonia fortunei	43,469,980	6,520,497,000	43.98
CS00230	Lardizabalaceae	Akebia quinata	43,772,758	6,565,913,700	43.45
CS00280	Berberidaceae	Berberis thunbergii 'Atropurpurea'	52,331,578	7,849,736,700	44.86
EM00020	Lardizabalaceae	Holboellia coriacea	48,560,058	7,284,008,700	43.34
EM00036	Papaveraceae	Corydalis edulis	49,117,876	7,367,681,400	43.62
EM00060	Lardizabalaceae	Akebia trifoliata	49,750,710	7,462,606,500	43.84
EM00104	Menispermaceae	Sinomenium acutum	96,441,182	14,466,177,300	45.48
EM00105	Ranunculaceae	Clematis urophylla	128,092,154	19,213,823,100	45.29
EM00109	Berberidaceae	Epimedium acuminatum	108,706,966	16,306,044,900	45.77
EM00127	Lardizabalaceae	Decaisnea insignis	50,352,332	7,552,849,800	44.74
EM00142	Ranunculaceae	Clematis apiifolia var. argentilucida	49,758,656	7,463,798,400	45.52
EM00156	Menispermaceae	Stephania tetrandra	49,280,336	7,392,050,400	44.915
EM00195	Menispermaceae	Tinospora sagittata var. craveniana	48,720,648	7,308,097,200	43.76
EM00204	Ranunculaceae	Clematis finetiana	41,953,724	6,293,058,600	45.31
EM00218	Ranunculaceae	Thalictrum ramosum	49,494,644	7,424,196,600	42.55
EM00244	Ranunculaceae	Ranunculus sieboldii	48,681,408	7,302,211,200	43.37
EM00268	Menispermaceae	Cyclea racemosa	48,284,150	7,242,622,500	47.37

HH00984A	Ranunculaceae	Aconitum monanthum	108,722,230	16,308,334,500	43.81
HH00994A	Ranunculaceae	Clematis fruticosa	136,135,370	20,420,305,500	45.02
HH01018A	Ranunculaceae	Caltha palustris	123,943,042	18,591,456,300	44.2
HRB0047B	Ranunculaceae	Clematis brevicaudata	101,403,282	15,210,492,300	45.22
HRB0063B	Ranunculaceae	Clematis manshurica	81,436,056	12,215,408,400	44.2
HRB0111B	Berberidaceae	Berberis ferdinandi-coburgii	85,406,106	12,810,915,900	44.12
HRB0204B	Ranunculaceae	Ranunculus japonicus	125,019,022	18,752,853,300	51.24
HRB0324B	Berberidaceae	Berberis koreana	80,568,258	12,085,238,700	44.05
SY00867A	Papaveraceae	Argemone mexicana	109,759,756	16,463,963,400	41.14
SY00890A	Ranunculaceae	Ranunculus minus	116,175,824	17,426,373,600	41.91
SY00927A	Lardizabalaceae	Stauntonia leucantha	167,850,190	25,177,528,500	43.9
TLF00928	Ranunculaceae	Clematis orientalis	51,122,006	7,668,300,900	45.27
TLF01005	Ranunculaceae	Clematis songorica	127,495,814	19,124,372,100	44.95
TLF01018	Berberidaceae	Berberis nummularia	117,908,630	17,686,294,500	44.2
XA00077	Berberidaceae	Nandina domestica var.leucocarpa	51,345,370	7,701,805,500	43.59
XA00103	Berberidaceae	Mahonia bealei	51,718,904	7,757,835,600	44.61
XA00201	Berberidaceae	Epimedium brevicomu	86,415,838	12,962,375,700	44.47
XA00224	Berberidaceae	Nandina domestica	95,351,632	14,302,744,800	44.14
XA00244	Ranunculaceae	Aconitum camichaelii	99,886,666	14,982,999,900	45.36
XA00278	Papaveraceae	Macleaya microcarpa	111,310,726	16,696,608,900	44.51
XA00290	Ranunculaceae	Clematis heracleifolia	100,519,618	15,077,942,700	45.495
XA00577	Eupteleaceae	Euptelea pleiosperma	48,946,934	7,342,040,100	46.58
XY00762	Menispermaceae	Menispermum dauricum	50,496,174	7,574,426,100	46.48
YZ0002	Ranunculaceae	Aconitella aconiti	68,357,180	6,793,533,828	45.17
YZ0005	Ranunculaceae	Actaea mairei	41,730,548	6,201,837,280	46.3
YZ0007	Ranunculaceae	Actaea vaginata	43,456,666	6,495,085,772	45.64
YZ0008	Ranunculaceae	Adonis amurensis	44,165,718	6,587,118,360	43.78
YZ0009	Ranunculaceae	Adonis sibirica	43,062,156	6,405,428,163	46.28
YZ0010	Ranunculaceae	Anemoclema glaucifolium	42,645,970	6,378,449,089	45.62
YZ0011	Ranunculaceae	Anemone patens	136,724,496	20,168,189,166	45.08
YZ0012	Ranunculaceae	Aquilegia coerulea	46,518,994	6,346,247,361	43.38
YZ0013	Ranunculaceae	Asteropyrum peltatum	55,299,878	8,222,501,647	44.9
YZ0014	Berberidaceae	Berberis aquifolium	85,266,640	8,394,170,291	45.29
YZ0016	Berberidaceae	Berberis shensiana	89,918,984	13,173,308,870	40.11
YZ0017	Ranunculaceae	Callianthemum alatavicum	49,369,664	7,349,034,193	44.86
YZ0018	Ranunculaceae	Callianthemum taipaicum	42,179,306	6,277,422,537	45.01
YZ0019	Papaveraceae	Capnoides sempervirens	26,188,358	2,345,039,518	44.34
YZ0020	Circaeasteraceae	Circaeaster agrestis	59,070,866	8,796,306,607	43.14
YZ0021	Menispermaceae	Cissampelos mucronata	75,992,402	7,384,459,669	47.33
YZ0022	Ranunculaceae	Clematis lanuginosa	73,851,938	10,867,774,834	47.65
YZ0023	Ranunculaceae	Clematis patens	117,605,444	17,395,101,176	45.52
YZ0025	Menispermaceae	Cocculus trilobus	122,875,264	12,056,704,834	45.52
YZ0026	Ranunculaceae	Coptis deltoidea	47,255,298	6,999,710,510	43.43
YZ0027	Ranunculaceae	Coptis teeta	52,471,174	7,833,889,907	42.86
YZ0030	Papaveraceae	Corydalis cheilanthifolia	63,795,072	6,693,649,315	43.84
YZ0035	Papaveraceae	Corydalis yanhusuo	69,796,352	10,433,096,890	42.96
YZ0038	Papaveraceae	Dactylicapnos scandens	82,957,256	10,348,867,734	44.58
YZ0039	Papaveraceae	Dactylicapnos torulosa	46,653,128	6,635,382,435	42.48
YZ0041	Ranunculaceae	Delphinium cardinale	65,776,216	9,726,127,665	46.12
YZ0042	Ranunculaceae	Delphinium elatum	45,809,912	6,806,415,545	45.43
YZ0043	Ranunculaceae	Delphinium grandiflorum var. chinense	49,403,258	7,287,615,111	46.05
YZ0044	Ranunculaceae	Delphinium hybrid cultivar	16,319,170	1,640,485,959	46.08
YZ0045	Ranunculaceae	Delphinium nudicaule	57,725,844	8,546,489,540	46.39
YZ0046	Papaveraceae	Dendromecon rigida	68,177,168	10,215,414,807	44.15
YZ0047	Berberidaceae	Diphylleia cymosa	44,961,614	6,724,780,871	44.01
YZ0048	Berberidaceae	Diphylleia grayi	44,031,902	6,591,722,512	43.71
YZ0049	Berberidaceae	Diphylleia sinensis	109,981,632	10,993,046,337	45.43
YZ0050	Berberidaceae	Dysosma aurantiocaulis	40,167,014	6,019,811,892	44.52
YZ0051	Berberidaceae	Dysosma pleiantha	30,351,486	4,171,373,336	44.64
YZ0052	Berberidaceae	Dysosma tsayuensis	65,764,490	6,573,702,401	44.3
YZ0054	Berberidaceae	Epimedium koreanum	43,425,408	6,504,889,263	45.46
YZ0055	Berberidaceae	Epimedium pseudowushanense	25,527,898	3,109,724,943	47.83
YZ0056	Berberidaceae	Epimedium pubescens	9,906,390	1,479,068,675	45.86
YZ0057	Ranunculaceae	Eranthis hyemalis	205,168,916	20,673,846,623	45.49
YZ0058	Papaveraceae	Eschscholzia californica	32,626,962	4,725,472,352	43.76
YZ0059	Papaveraceae	Fumaria bracteosa	41,730,548	6,201,837,280	46.3
YZ0060	Ranunculaceae	Garidella nigellastrum	42,913,892	6,195,691,146	42.71
YZ0061	Ranunculaceae	Garidella unguicularis	58,842,606	8,817,053,555	43.46
YZ0062	Papaveraceae	Glaucium flavum	52,445,108	7,860,147,435	43.23

YZ0063	Berberidaceae	Gymnospermium kiangnanense	40,133,642	6,012,348,169	43.63
YZ0064	Ranunculaceae	Halerpestes cymbalaria	43,449,274	6,473,781,823	44.75
YZ0065	Ranunculaceae	Helleborus argutifolius	53,539,828	8,025,641,195	45.04
YZ0066	Ranunculaceae	Helleborus atrorubens	51,289,160	7,688,224,091	45.16
YZ0067	Ranunculaceae	Helleborus foetidus	54,040,004	8,100,702,758	44.7
YZ0068	Ranunculaceae	Helleborus lividus	61,384,622	9,201,699,907	44.5
YZ0069	Ranunculaceae	Helleborus torquatus	65,127,742	9,761,851,160	45.19
YZ0070	Ranunculaceae	Hepatica henryi	50,344,182	7,477,533,480	44.84
YZ0071	Ranunculaceae	Hepatica nobilis var. japonica	28,874,532	2,867,536,325	43.62
YZ0073	Papaveraceae	Hypocoum procumbens	24,422,396	2,186,142,055	45.2
YZ0074	Berberidaceae	Jeffersonia diphylla	71,263,784	6,885,272,973	43.69
YZ0075	Ranunculaceae	Komaroffia diversifolia	53,704,412	8,042,874,770	44.67
YZ0076	Ranunculaceae	Leptopyrum fumarioides	60,603,578	9,067,098,416	42.36
YZ0079	Menispermaceae	Menispermum canadense	55,665,816	8,225,072,671	45.99
YZ0080	Ranunculaceae	Nigella arvensis	45,175,052	6,771,719,204	42.5
YZ0081	Ranunculaceae	Nigella carpatha	49,879,258	7,478,615,100	43.24
YZ0082	Ranunculaceae	Nigella ciliaris	49,166,350	7,366,706,252	43.46
YZ0083	Ranunculaceae	Nigella damascena	20,999,302	2,992,283,195	43.18
YZ0084	Ranunculaceae	Nigella degenii	43,805,930	6,562,708,254	42.96
YZ0085	Ranunculaceae	Nigella doerfleri	46,264,990	6,936,102,153	43.89
YZ0086	Ranunculaceae	Nigella elata	56,722,500	8,499,068,006	43.57
YZ0087	Ranunculaceae	Nigella fumariifolia	53,410,152	8,004,005,177	43.17
YZ0088	Ranunculaceae	Nigella icarica	46,804,294	7,012,243,461	43.58
YZ0089	Ranunculaceae	Nigella integrifolia	129,562,002	19,423,741,026	44.75
YZ0090	Ranunculaceae	Nigella orientalis	52,365,280	7,845,690,577	43.41
YZ0091	Ranunculaceae	Nigella papillosa	49,620,998	7,431,388,040	43.16
YZ0092	Ranunculaceae	Nigella sativa	63,451,628	6,300,033,520	43.71
YZ0093	Ranunculaceae	Nigella stricta	38,504,848	5,771,010,910	43.45
YZ0094	Ranunculaceae	Oxygraphis glacialis	39,989,592	5,956,426,190	44.95
YZ0097	Ranunculaceae	Paraquilegia microphylla	41,925,670	6,237,910,061	43.97
YZ0098	Menispermaceae	Paratinospora sagittata	42,762,384	6,366,000,074	44.05
YZ0099	Ranunculaceae	Pulsatilla vulgaris	25,077,216	2,246,334,220	45.94
YZ0102	Ranunculaceae	Ranunculus brotherusii	104,974,116	9,421,506,607	44.66
YZ0104	Ranunculaceae	Ranunculus cantoniensis	100,727,136	9,034,914,760	44.03
YZ0105	Ranunculaceae	Ranunculus carpaticola	5,469,712	984,301,172	43.87
YZ0106	Ranunculaceae	Ranunculus caucasicus	37,436,854	3,725,272,567	40.95
YZ0107	Ranunculaceae	Ranunculus notabilis	7,717,198	1,390,406,996	43.95
YZ0108	Ranunculaceae	Ranunculus sceleratus	92,303,212	8,301,039,230	44.33
YZ0109	Ranunculaceae	Ranunculus trichophyllus	97,331,328	9,777,011,905	44.21
YZ0110	Papaveraceae	Roemeria refracta	49,151,490	7,097,945,621	42.06
YZ0112	Menispermaceae	Stephania yunnanensis	81,393,060	12,205,416,436	45.62
YZ0113	Papaveraceae	Stylophorum diphyllum	38,673,640	3,847,701,772	44.94
YZ0116	Ranunculaceae	Trollius ranunculoides	41,298,258	6,174,100,065	45.93
YZ0117	Ranunculaceae	Urophysa henryi	56,092,112	8,405,995,632	43.6
YZ0118	Ranunculaceae	Urophysa rockii	54,448,984	8,158,561,177	44.32
YZ0119	Berberidaceae	Vancouveria hexandra	111,669,552	11,012,684,922	45.81
Average			69,520,193	10,128,422,806	44.36

Note: Samples with accession numbers beginning with "YZ" were downloaded from NCBI.