

Appendix 1. 50 markers used in the known arRP genotyping

Gene	Marker	Position	Fragment size(bp)	labeled fluorescent color
<i>ABCA4</i>		chr1:94,230,982-94,359,293		
	D1S2868	chr1:93,108,095-93,108,366	210-224	blue
	D1S206	chr1: 101,457,893- 101,458,138	208-226	yellow
<i>RPE65</i>		chr1:68,667,095-68,688,230		
	D1S230	chr1: 62,374,873-62,375,235	154-166	green
<i>USH2A</i>		chr1:213,862,859-214,663,361		
	D1S425	chr1:210,049,809-210,250,166	336-360	yellow
	D1S213	chr1:221,783,487-221,983,597	107-133	yellow
<i>CRB1</i>		chr1:221,783,487-221,983,597		
	D1S238	chr1:186,312,801-186,513,109	296-330	blue
	D1S413	chr1:196,786,994-196,987,303	254-270	blue
	D1S249	chr1:203,881,932-204,082,301	163-193	blue
<i>CERKL</i>		chr2:182,109,650-182,229,996		
	D2S335	chr2:172,174,742-172,374,963	189-209	yellow
	D2S364	chr2:182,642,778-182,843,169	234-260	yellow
<i>MERTK</i>		chr2:112,372,662-112,503,416		
	D2S160	chr2:112,614,906-112,815,205	211-227	blue
<i>SAG</i>		chr2:233,881,048-233,920,440		
	D2S206	chr2:233,316,019-233,516,405	234-260	green
	D2S338	chr2: 236,900,133-236,900,482	270-294	yellow
<i>RHO</i>		chr3:130,730,172-130,736,877		
	D3S1267	chr3:124,425,893-124,626,078	98-136	yellow

<i>PROM1</i>	D3S1292	chr3:133,012,999-133,213,315 chr4:15,578,955-15,694,453	115-149	yellow
	D4S2935	chr4:6,511,782-6,712,132	90-110	green
	D4S403	chr4:13,259,926-13,460,264	173-189	blue
<i>CNGA1</i>	D4S419	chr4:18,357,858-18,558,207 chr4:47,632,751-47,709,718	229-249	yellow
	D4S405	chr4:39,947,269-40,147,672	284-312	green
<i>LRAT</i>	D4S413	chr4:155,884,602-155,893,720 chr4:158,472,605-158,672,934	286-338	blue
<i>PDE6B</i>		chr4:609,373-654,571		
	D4S412	chr4:3,250,490-3,450,810	98-136	green
<i>PDE6A</i>	D4S2935	chr4:6,511,782-6,712,132	90-110	green
	D5S436	chr5:149,217,712-149,304,549 chr5:145,084,111-145,284,474	242-262	blue
	D5S410	chr5:152,655,168-152,855,554	332-354	blue
<i>TULP1</i>		chr6:35,573,629-35,588,625		
	D6S1610	chr6:39,267,525-39,467,833	204-218	blue
<i>RPI</i>		chr8:55,691,180-55,705,947		
	D8S285	chr8:57,129,611-57,329,936	317-333	yellow
<i>RBP3</i>	D8S260	chr8:61,884,335-62,084,648	195-221	blue
		chr10:48,001,493-48,010,997		
	D10S196	chr10:51,712,274-51,912,455	132-162	green
<i>RGR</i>		chr10:85,994,789-86,008,924		
	D10S1686	chr10:85,456,281-85,656,566	247-285	green
<i>NRL</i>		chr14:23,619,156-23,654,063		

	D14S261	chr14:20,740,388-20,940,704	276-308	yellow
	D14S275	chr14:25,666,613-25,866,860	276-308	blue
	D14S283	chr14:22,587,415-22,787,784	132-162	green
<i>SPATA7</i>		chr14:87,921,495-87,974,557		
	D14S74	chr14:77,628,133-77,828,450	301-325	green
	D14S68	chr14:87,597,388-87,797,728	243-263	yellow
	D14S280	chr14:91,152,620-91,352,951	243-263	blue
<i>NR2E3</i>		chr15:69,889,948-69,897,651		
	D15S153	chr15:64,246,917-64,447,255	244-278	yellow
	D15S131	chr15:68,870,830-69,071,163	244-184	green
<i>RLBP1</i>		chr15:87,,554,102-87,565,926		
	D15S205	chr15:81,921,672-82,121,884	130-170	blue
	D15S127	chr15:89,098,604-89,298,889	121-157	yellow
	D15S130	chr15:92,412,174-92,612,527	288-302	blue
<i>CNGBI</i>		chr16:56,475,206-56,562,513		
	D16S415	chr16:52,128,162-52,328,542	216-244	blue
	D16S503	chr16:62,056,289-62,256,636	300-320	green
	D16S3136	chr16:50,606,233-50,806,482	176-188	blue
<i>PRCD</i>		chr17:72,047,767-72,052,047		
	D17S785	chr17:71,842,895-72,043,176	169-197	yellow
	D17S784	chr17:75,316,716-75,517,019	233-247	green
	D17S949	chr17:68,365,332-68,565,676	214-232	blue
	D17S928	chr17:80,152,839-80,353,140	74-108	yellow
<i>IDH3B</i>		chr20:2,587,041-2,592,843		
	D20S115	chr20:7,559,867-7,760,237	238-250	yellow

D20S889	chr20:3,846,953-4,047,270	93-129	blue
D20S186	chr20:11,423,795-11,624,027	121-143	green
D20S117	chr20:555,092-755,440	154-190	blue
