

	mutation rate per Chandler																																				
ID	DYS393	DYS390	DYS19	DYS391	DYS385a	DYS385b	DYS426	DYS388	DYS439	DYS389-1	DYS392	DYS389-2	DYS458	DYS459a	DYS459b	DYS455	DYS454	DYS447	DYS437	DYS448	DYS449	DYS464a	DYS464b	DYS464c	DYS464d	DYS460	GATA-H4	YCA-IIa	YCA-IIb	DYS456	DYS607	DYS576	DYS570	CDYa	CDYb	DYS442	DYS438
Ewing	13	25	15	11	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	11	11	19	23	18	16	18	17	37	38	11	12
Group 1*	13	25	15	11	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	11	11	19	23	18	16	18	17	37	38	11	12
1a,1b,1c,1d	13	25	15	11	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	11	11	19	23	18	16	18	17	37	38	11	12
Group 1e	13		15	11	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18		15	16	16	17	11	11	19	23	18	16	18	17	36	39	11	12
Group 1f	13	25	15	11	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	11	11	19	23		16	18	17	36	38	11	12
Group 2*,2b	13	25	15	10	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	11	11	19	23	18	16	18	17	37	38	11	12
Group 2a	13	25	15	10	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15	18	31	15	16	16	17	11	11	19	23	18	16	18	17	35	37	11	12
Group 2d	13	25	15	10	11	13	12	12	13	13	14	29	17	9	10	11	11	25	15			15	16	16	17	11	11	19	23	18	16		17		38	11	12
R:M222	13	25	14	11	11	13	12	12	12	13	14	29	17	9	10	11	11	25	15	18	30	15	16	16	17	11	11	19	23	17	16	18	17	38	39	12	12
R1b1b2	13	24	14	11	11	14	12	12	12	13	13	29	17	9	10	11	11	25	15	18	29	15	15	17	17	11	11	19	23	15	15	18	17	37	38	12	12
Group 3a	13	25	14	11	11		12	12	12	13	14	29	18	9	10	11	11	25	15	18	30	15	16	16	17	11	11	19	23	16	16		17		38	12	12
Group 3b	13	25	14	11	11	13	12	12	12	13	14	29	17	9	10	11	11	24	15	18	30	15	16		17	11		19	23	16	16	17	17	37	38	12	12
Group 4*	13	24	14	10	11	14	12	12	12	13	13	29	18	9	10	11	11	25	15	19	29	15	15	17	17	11	11	19	23	16	15	18	17	36	38	12	12
Group 4a	13	24	15	11	11	15	12	12	12	12	13	28	18	9	10	11	11	25	15	19	29	15	15	17	17	11	12	19	23	16	14	18	17	36	38	12	12
R1bSTR47	13	24	14	10	11	14	12	12	12	13	13	30	18	9	10	11	11	25	15	19	30	15	15	17	17	11	12	19	24	16	15	18	17	37	38	12	12
Group 4b	13	24	14	10	11	14	12	12	12	13	13	29	18	9	10	11	11	25	15	19	30	13	15	17	17	11	10	19	23	16	15	18	18		38	12	12
Group 4c	13	24	14	11	10	15	12	12	12	13	13	29	18	9	10	11	11	25	15	19	29	15	15	17	18	11	11	19	23	16	13	17	17	35	36	12	12
Group 4d	13	24	14	10	12	15	13	12	12	13	13	29	17	9	10	11	11	25	15	19	28	15	15	16	18	10	10	19	23	15	15	18	17	36	37	12	12
Group 5a	15	22	16	10	14	14	11	13	11	12	12	29	18	8	10	11	11	22	15	20	31	11	15	15	15	11	11	19	21	14	15	17	18	33	38	12	10

Irish III

11

8 9

13 13 15 17

15

Cullen predictor results (<http://members.bex.net/jtcullen515/haplotest.htm>)

M222+ R1b-N.Irish =>50% R1b-M222 (NW Irish) =>50%

R1b1b2 R1b =>97% R1b-S28 =>2%

Ewing R1b-N.Irish =>50% R1b-M222 (NW Irish) =>50%

Group 4a R1b =>66% R1b-S28 =>14% R1b-S29-Frisian2 =>9% R1b-C.Europe =>4% R1b-Frisian =>1% R1b-S.Irish =>1% R1b-S21* =>1% R1b-Leinster =>1% R1b-S21-Scottish =>1%

Group 4b R1b-S28 =>36% R1b =>33% R1b-S21-Scottish =>13% R1b-North/South 1 =>5% R1b-Ub =>5% R1b-Leinster =>2% R1b-North/South 2 =>1% R1b-Frisian =>1% R1b-S.Irish =>1% R1b-Irish/Continental =>1%

Group 4c R1b-S29-Frisian2 =>41% R1b =>37% R1b-S28 =>12% R1b-Frisian =>3% R1b-Irish/Continental =>2% R1b-S21* =>2% R1b-Leinster =>2%

Group 4d R1b-Irish/Continental =>100%

JM3 R1b-Ub =>70% R1b =>13% R1b-C.Europe =>7% R1b-S28 =>3% R1b-E.Europe =>2% R1b-S26 =>2% R1b-IrishIII =>1%

Note: modals for the R1b clusters Cullen speaks about were derived by Ken Nordtvedt and can be seen at <http://www.irishtype3dna.org/KenNordtvedt.htm>.