

		precise NHEJ			imprecise NHEJ			two-hybrid			
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His	-Ade
primerless PCR (=wt)	Rep1	204	174	136	92	154	85				
	Rep2	172	313	63	124	204	86				
	Rep3										
L750L (=wt)	Rep1	206	209	114	124	278	63				
	Rep2	212	373	65	237	208	162				
	Rep3										
S813S (=wt)	Rep1	159	213	86	119	194	87				
	Rep2	204	168	140	154	165	133				
	Rep3										
Q875Q (=wt)	Rep1	229	190	139	169	294	82				
	Rep2	150	334	52	130	261	71				
	Rep3										
L750*	Rep1	22	225	11	0	264	0				
	Rep2	52	294	20	0	198	0				
	Rep3										
A789*	Rep1	24	209	13	4	196	2				
	Rep2	60	271	25	3	181	2				
	Rep3										
F836*	Rep1	171	242	82	56	313	25				
	Rep2	207	247	97	62	233	37				
	Rep3										

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
F686A	Rep1	177	222	92	140	325	61			
	Rep2	182	172	122	111	187	84			
	Rep3									
G688A	Rep1	168	223	87	153	264	82			
	Rep2	302	301	116	121	183	94			
	Rep3									
L689A	Rep1	186	173	124	99	228	61			
	Rep2	321	502	74	124	182	97			
	Rep3									
SD(695:696)AA	Rep1	98	281	40	182	349	74			
	Rep2	216	541	46	108	254	60			
	Rep3									
Y697A	Rep1	161	179	104	128	317	57			
	Rep2	249	289	100	85	172	70			
	Rep3									
TG(702:703)AA	Rep1	13	150	10	2	207	1			
	Rep2	269	231	135	352	221	227			
	Rep3									
RIT(705:707)AIA	Rep1	192	253	88	0	0	xxx			
	Rep2	229	253	105	169	236	102			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid			
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His	-Ade
I706A	Rep1	0	0	xxx	157	250	89				
	Rep2	273	204	155	125	126	141				
	Rep3										
RAE(708:710)AAA	Rep1	173	204	98	128	280	65				
	Rep2	305	246	143	151	153	140				
	Rep3										
E712A	Rep1	288	210	159	224	355	90				
	Rep2	189	174	126	223	231	137				
	Rep3										
IV(715:716)AA	Rep1	162	139	135	92	204	64				
	Rep2	267	248	124	119	173	98				
	Rep3										
GG(719:720)AA	Rep1	122	154	91	77	193	56				
	Rep2	191	225	98	70	138	72				
	Rep3										
GK(720:721)AA	Rep1	190	202	109	156	337	66				
	Rep2	221	211	121	185	207	127				
	Rep3										
LI(722:723)AA	Rep1	186	192	112	80	265	43				
	Rep2	215	292	85	73	221	47				
	Rep3										

		precise NHEJ			imprecise NHEJ			two-hybrid			
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His	-Ade
N725A	Rep1	160	183	101	75	227	47				
	Rep2	242	221	127	108	215	71				
	Rep3										
L728A	Rep1	168	158	123	139	244	81				
	Rep2	56	241	26	129	216	85				
	Rep3										
K729A	Rep1	177	146	140	95	182	74				
	Rep2	378	157	279	185	221	119				
	Rep3										
R737A	Rep1	183	195	108	112	286	55				
	Rep2	359	229	181	201	232	123				
	Rep3										
SC(740:741)AA	Rep1	0	0	xxx	26	252	14				
	Rep2	197	183	124	215	261	117				
	Rep3										
K742E	Rep1	73	203	41	131	339	55				
	Rep2	91	349	30	29	221	18				
	Rep3										
KTT(742:744)ATA	Rep1	14	204	7	0	326	0				
	Rep2	24	275	10	0	211	0				
	Rep3										

		precise NHEJ			imprecise NHEJ			two-hybrid			
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His	-Ade
EC(746:747)AA	Rep1	84	225	43	81	314	36				
	Rep2	67	189	41	112	210	76				
	Rep3										
CK(747:748)AA	Rep1	216	129	194	148	359	58				
	Rep2	157	467	39	169	214	112				
	Rep3										
LI(750:751)AA	Rep1	18	181	11	0	283	0				
	Rep2	34	251	15	0	186	0				
	Rep3										
DR(752:753)AA	Rep1	182	229	92	136	294	66				
	Rep2	240	231	120	191	200	136				
	Rep3										
R753E	Rep1	175	191	106	126	213	84				
	Rep2	25	170	17	0	202	0				
	Rep3										
GYD(754:756)AYA	Rep1	162	74	254	147	248	84				
	Rep2	173	234	85	207	202	146				
	Rep3										
Y755A	Rep1	121	241	58	133	374	50				
	Rep2	125	241	60	251	248	144				
	Rep3										



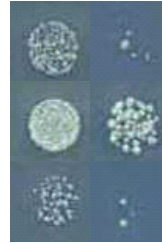
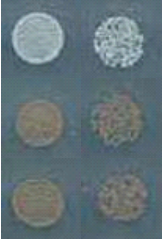
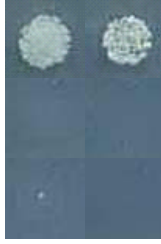

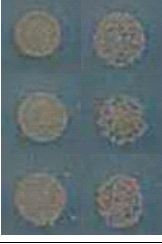


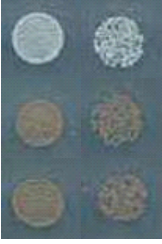
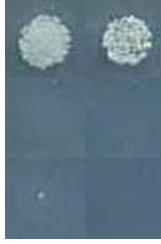

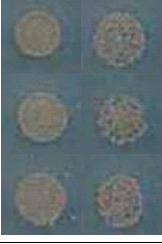


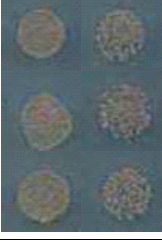


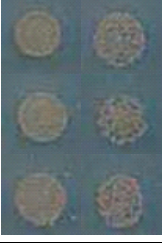


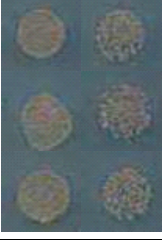


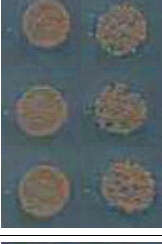


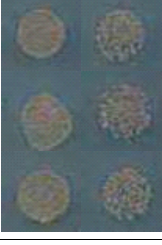


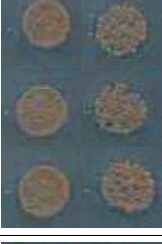


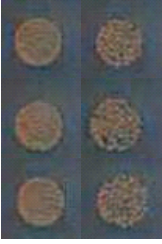
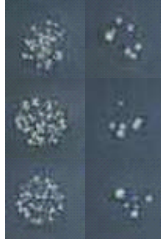
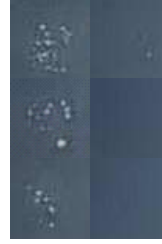
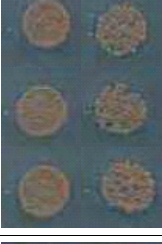


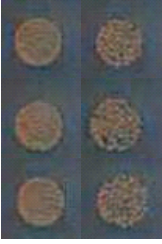
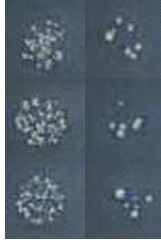
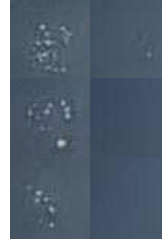



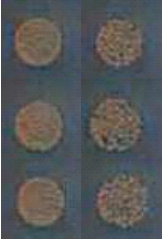
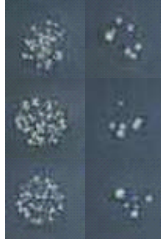
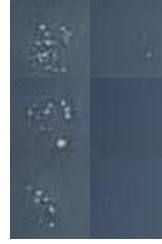



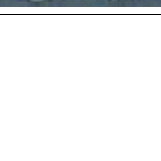
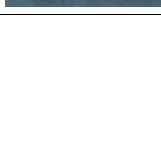
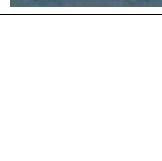



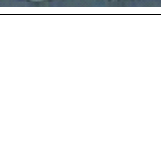
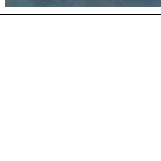
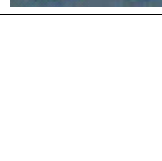
		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
D756K	Rep1	119	165	83	79	361	31			
	Rep2	254	230	128	111	245	64			
	Rep3									
HP(759:760)AA	Rep1	206	140	170	91	239	54			
	Rep2	21	228	10	0	350	0			
	Rep3									
W762A	Rep1	163	166	113	135	274	70			
	Rep2	284	205	160	188	226	118			
	Rep3									
D765K	Rep1	241	228	122	190	309	87			
	Rep2	202	258	90	219	167	187			
	Rep3									
DC(765:766)AA	Rep1	198	204	112	129	257	71			
	Rep2	148	294	58	161	165	139			
	Rep3									
Y769A	Rep1	263	205	148	125	301	59			
	Rep2	129	209	71	108	172	89			
	Rep3									
K770A	Rep1	200	205	113	158	316	71			
	Rep2	166	230	83	101	212	67			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid			
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His	-Ade
L772A	Rep1	211	156	156	101	241	59				
	Rep2	144	227	73	143	151	135				
	Rep3										
I775A	Rep1	172	182	109	65	168	55				
	Rep2	124	203	70	161	216	106				
	Rep3										
E776K	Rep1	170	241	81	151	233	92				
	Rep2	223	297	87	188	253	106				
	Rep3										
EP(776:777)AA	Rep1	161	167	111	96	137	99				
	Rep2	129	229	65	140	195	102				
	Rep3										
YCF(779:781)ACA	Rep1	170	193	102	99	186	75				
	Rep2	130	164	92	157	174	128				
	Rep3										
CFN(780:782)AFA	Rep1	147	168	101	131	190	98				
	Rep2	103	164	72	129	179	102				
	Rep3										
FNV(781:783)ANA	Rep1	185	136	157	143	174	117				
	Rep2	179	184	112	142	202	100				
	Rep3										

		precise NHEJ			imprecise NHEJ			two-hybrid			
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His	-Ade
NVS(782:784)AVA	Rep1	213	171	144	146	169	123				
	Rep2	128	198	75	138	196	100				
	Rep3										
EK(792:793)AA	Rep1	169	145	135	140	246	81				
	Rep2	210	550	44	160	236	96				
	Rep3										
RVD(794:796)AVA	Rep1	56	231	28	26	265	13				
	Rep2	101	281	41	48	232	29				
	Rep3										
V795A	Rep1	240	204	136	129	154	119				
	Rep2	239	183	151	132	242	77				
	Rep3										
D796K	Rep1	190	197	111	72	297	34				
	Rep2	154	251	71	96	215	63				
	Rep3										
GD(799:800)AA	Rep1	170	189	104	93	332	39				
	Rep2	177	467	43	100	230	62				
	Rep3										
D800K	Rep1	127	167	88	95	325	41				
	Rep2	151	507	34	56	154	51				
	Rep3										

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
SFE(801:803)AFA	Rep1	173	209	96	126	219	82			
	Rep2	242	534	52	121	186	92			
	Rep3									
F802A	Rep1	218	186	136	147	223	94			
	Rep2	157	351	51	185	381	69			
	Rep3									
I806A	Rep1	159	258	71	111	163	97			
	Rep2	177	131	156	140	209	95			
	Rep3									
SE(807:808)AA	Rep1	153	219	81	115	285	57			
	Rep2	220	151	169	139	221	89			
	Rep3									
L811A	Rep1	305	194	182	124	275	64			
	Rep2	195	193	117	132	171	110			
	Rep3									
S812A	Rep1	226	147	178	117	272	61			
	Rep2	181	192	109	113	188	85			
	Rep3									
SQ(817:818)AA	Rep1	219	166	153	143	242	84			
	Rep2	260	207	145	136	169	114			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
D830K	Rep1	266	191	161	122	304	57			
	Rep2	176	186	109	229	327	99			
	Rep3									
DSE(830:832)ASA	Rep1	212	205	120	208	282	105			
	Rep2	160	364	51	212	236	128			
	Rep3									
P837A	Rep1	190	168	131	117	321	52			
	Rep2	203	319	73	178	321	79			
	Rep3									
LF(838:839)AA	Rep1	227	195	135	184	345	76			
	Rep2	221	188	136	289	330	124			
	Rep3									
LF(840:841)AA	Rep1	69	189	42	53	311	24			
	Rep2	205	376	63	19	330	8			
	Rep3									
R844A	Rep1	199	232	99	129	281	65			
	Rep2	110	260	49	84	205	58			
	Rep3									
IAY(845:847)AAA	Rep1	168	267	73	152	348	62			
	Rep2	142	288	57	181	284	90			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
P849A	Rep1	196	151	150	148	300	70			
	Rep2	205	214	111	127	252	71			
	Rep3									
KIK(863:865)AIA	Rep1	182	274	77	132	283	66			
	Rep2	115	232	57	112	174	91			
	Rep3									
IKL(864:866)AKA	Rep1	278	260	124	145	262	78			
	Rep2	166	234	82	125	151	118			
	Rep3									
LF(866:867)AA	Rep1	205	291	81	72	210	48			
	Rep2	184	258	82	151	332	64			
	Rep3									
GG(868:869)AA	Rep1	126	310	47	138	288	68			
	Rep2	137	287	55	204	284	102			
	Rep3									
KIT(870:872)AIA	Rep1	209	211	114	98	215	65			
	Rep2	168	210	92	235	409	81			
	Rep3									
L877A	Rep1	241	188	148	145	320	64			
	Rep2	164	223	85	146	263	79			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
CN(878:879)AA	Rep1	217	173	145	110	261	60			
	Rep2	146	237	71	102	237	61			
	Rep3									
P884A	Rep1	176	213	95	97	235	58			
	Rep2	156	159	113	140	209	95			
	Rep3									
P888A	Rep1	148	168	102	0	0	xxx			
	Rep2	156	304	59	155	189	117			
	Rep3									
KD(892:893)AA	Rep1	180	204	102	122	264	65			
	Rep2	182	309	68	128	152	120			
	Rep3									
PK(913:914)AA	Rep1	170	163	121	107	265	57			
	Rep2	149	223	77	107	197	77			
	Rep3									
I915A	Rep1	184	219	97	90	217	59			
	Rep2	183	402	52	245	196	178			
	Rep3									
R917A	Rep1	244	201	140	153	274	79			
	Rep2	0	196	0	11	331	4			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
PE(921:922)AA	Rep1	264	208	147	141	329	61			
	Rep2	151	278	63	151	284	75			
	Rep3									
WV(923:924)AA	Rep1	105	222	54	25	280	12			
	Rep2	108	241	52	21	226	13			
	Rep3									
DHS(925:927)AHA	Rep1	243	263	107	135	314	61			
	Rep2	127	212	69	147	237	88			
	Rep3									
I928A	Rep1	235	200	136	103	280	52			
	Rep2	164	247	77	139	225	88			
	Rep3									
NCQ(931:933)ACA	Rep1	201	204	114	119	254	66			
	Rep2	152	248	71	97	153	90			
	Rep3									
V934A	Rep1	21	141	17	8	117	9			
	Rep2	130	201	75	221	351	89			
	Rep3									
PE(935:936)AA	Rep1	185	222	96	129	296	62			
	Rep2	108	325	38	237	200	169			
	Rep3									

		precise NHEJ			imprecise NHEJ			two-hybrid		
		exp	ctl	%wt	exp	ctl	%wt	-Leu	-Trp	-His
EED(936:938)KRK	Rep1	172	252	79	84	237	50			
	Rep2	105	294	41	38	241	22			
	Rep3									
ED(937:938)AA	Rep1	219	450	56	91	209	62			
	Rep2	67	195	39	106	246	61			
	Rep3									
DFP(938:940)AFA	Rep1	198	202	113	121	208	83			
	Rep2	130	285	52	183	296	88			
	Rep3									
FPV(939:941)APA	Rep1	171	263	75	0	0	xxx			
	Rep2	159	265	69	186	301	88			
	Rep3									