

MiniMUGA Background Analysis v2.3.1

Sample ID	Q640																																						
Neogen ID	AAAU-4546																																						
Summary	<p>The genotype of this sample is of excellent quality. It is female and outbred, and likely a mix of C57BL/6J and C57BL/6NRj and CBA/J. Clustering of unexplained markers is evidence of an additional background strain.</p> <p>Diagnostic SNPs are likely explained by the presence of the background strains</p> <ul style="list-style-type: none">Solution 1: C57BL/6J and C57BL/6NRj<ul style="list-style-type: none">C57BL/6J: 58 / 160 (36.2%)C57BL/6NRj: 18 / 39 (46.2%)Solution 2: C57BL/6JRj and C57BL/6NRj<ul style="list-style-type: none">C57BL/6JRj: 58 / 160 (36.2%)C57BL/6NRj: 18 / 39 (46.2%) <p>No genetic constructs were detected in this sample.</p>																																						
	Genotyping Quality	Excellent (2 N calls) All reported results are dependent on genotyping quality.																																					
	Chromosomal Sex	XX																																					
Inbreeding Estimate	63.9% Inbred (Percentage of the genome (autosomal and X chromosomes) that is homozygous or hemizygous for primary, secondary, and unknown backgrounds. See Genome Analysis)																																						
Constructs Detected	<table><thead><tr><th>BlastR</th><th>bpA</th><th>Cas9</th><th>chlor</th><th>eHS4</th><th>Cre</th><th>DTA</th><th>Flp</th><th>g_FP</th><th>hCMV_a</th><th>hCMV_b</th><th>hTK_pr</th><th>iCre</th><th>IRES</th><th>Luc</th><th>r_FP</th><th>rtTA</th><th>SV40</th><th>tTA</th></tr></thead><tbody><tr><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></tbody></table>	BlastR	bpA	Cas9	chlor	eHS4	Cre	DTA	Flp	g_FP	hCMV_a	hCMV_b	hTK_pr	iCre	IRES	Luc	r_FP	rtTA	SV40	tTA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BlastR	bpA	Cas9	chlor	eHS4	Cre	DTA	Flp	g_FP	hCMV_a	hCMV_b	hTK_pr	iCre	IRES	Luc	r_FP	rtTA	SV40	tTA																					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																					
Refined Ideogram	<div><div>Sample AAAU-4546 - Genetic Background</div><div><div><div>C57BL/6J and C57BL/6NRj</div><div>CBA/J</div><div>C57BL/6J and C57BL/6NRj X CBA/J</div></div><div><div>IBD</div><div>Unexplained Homozygous</div><div>Unexplained Heterozygous</div></div></div><div><div>Diagnostic Markers</div><div><div>C57BL/6J and C57BL/6NRj Diagnostic Allele</div><div>C57BL/6J and C57BL/6NRj Non-Diagnostic Allele</div></div></div></div>																																						

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	Background	Zygotity	Informative Markers	Informative Markers %	Genome %
Genome Analysis	C57BL/6J and C57BL/6NRj	N/A	1130	42.4%	43.7%
	CBA/J	Homozygous	579	21.7%	20.2%
	C57BL/6J and C57BL/6NRj X CBA/J	Heterozygous	940	35.3%	35.7%
	Unexplained	Heterozygous	15	0.6%	0.4%
	Total		2664	100.0%	100.0%
Y Chromosome	Not Applicable				
MT Genome	MT Haplogroup 6 - 100.0% Consistent Includes C57BL/6J, C57BL/6NRj, CBA/J and 165 other strains				
Backgrounds Detected (Diagnostic Alleles)	Diagnostic Alleles Observed				
	Diagnostic Class		Homozygous	Heterozygous	Potential % Observed
	C57BL/6J, C57BL/6JJicTac, C57BL/6JRj		4	35	102 38.2%
	C57BL/6J, C57BL/6JEiJ, C57BL/6JJicTac, C57BL/6JRj		5	5	21 47.6%
	C57BL/6NRj, C57BL/6NTac		4	4	15 53.3%
	C57BL/6NJ, C57BL/6NRj, C57BL/6NTac		3	2	10 50.0%
	C57BL/6J, C57BL/6JRj		0	7	31 22.6%
	B6N-Tyr<c-Brd>/BrdCrCrl, C57BL/6J, C57BL/6JEiJ, C57BL/6JJicTac, C57BL/6JRj		1	0	1 100.0%
	B6N-Tyr<c-Brd>/BrdCrCrl, C57BL/6NCrl, C57BL/6NHsd, C57BL/6NJ, C57BL/6NRj, C57BL/6NTac		1	0	2 50.0%
	C57BL/6NCrl, C57BL/6NHsd, C57BL/6NJ, C57BL/6NRj, C57BL/6NTac		0	2	2 100.0%
	C57BL/6NRj		0	2	10 20.0%
	B6N-Tyr<c-Brd>/BrdCrCrl, C57BL/6J, C57BL/6JJicTac, C57BL/6JRj		0	1	5 20.0%
	Minimal Strain Sets Explaining All Diagnostic Classes (Number of Markers Explained): <ul style="list-style-type: none">Solution 1: C57BL/6J and C57BL/6NRj<ul style="list-style-type: none">C57BL/6J: 58 / 160 (36.2%)C57BL/6NRj: 18 / 39 (46.2%)Solution 2: C57BL/6JRj and C57BL/6NRj<ul style="list-style-type: none">C57BL/6JRj: 58 / 160 (36.2%)C57BL/6NRj: 18 / 39 (46.2%)				
	Chromosome	Start (Mb)	Stop (Mb)	Background	Zygotity
	1	30000000	41869819	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	1	41869819	69700765	CBA/J	Homozygous
	1	69700765	165183608	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	1	165183608	170316822	C57BL/6J and C57BL/6NRj	N/A
	1	170316822	195471971	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	2	30000000	78267191	C57BL/6J and C57BL/6NRj	N/A

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Diplotype Intervals	2	78267191	139631657	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	2	139631657	154349372	CBA/J	Homozygous
	2	154349372	175780822	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	2	175780822	182113224	C57BL/6J and C57BL/6NRj	N/A
	3	30000000	41975127	C57BL/6J and C57BL/6NRj	N/A
	3	41975127	101716043	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	3	101716043	160039680	C57BL/6J and C57BL/6NRj	N/A
	4	30000000	26280383	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	4	26280383	35563307	C57BL/6J and C57BL/6NRj	N/A
	4	35563307	41348396	Unexplained	Heterozygous
	4	41348396	101914190	C57BL/6J and C57BL/6NRj	N/A
	4	101914190	120738488	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	4	120738488	152440879	CBA/J	Homozygous
	4	152440879	156508116	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	5	30000000	111745102	C57BL/6J and C57BL/6NRj	N/A
	5	111745102	116795433	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	5	116795433	130280923	CBA/J	Homozygous
	5	130280923	134172373	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	5	134172373	151834684	C57BL/6J and C57BL/6NRj	N/A
	6	30000000	80057017	C57BL/6J and C57BL/6NRj	N/A
	6	80057017	96327282	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	6	96327282	149736546	C57BL/6J and C57BL/6NRj	N/A
	7	30000000	16360273	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	7	16360273	47395440	CBA/J	Homozygous
	7	47395440	115227247	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	7	115227247	145441459	C57BL/6J and C57BL/6NRj	N/A
	8	30000000	96009840	C57BL/6J and C57BL/6NRj	N/A
	8	96009840	129401213	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	9	30000000	115715944	C57BL/6J and C57BL/6NRj	N/A
	9	115715944	124595110	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	10	30000000	42917049	C57BL/6J and C57BL/6NRj	N/A

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10	42917049	61450853	CBA/J	Homozygous
10	61450853	68332199	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
10	68332199	115781736	CBA/J	Homozygous
10	115781736	130694993	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
11	30000000	22302070	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
11	22302070	105886229	C57BL/6J and C57BL/6NRj	N/A
11	105886229	112771442	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
11	112771442	119038285	C57BL/6J and C57BL/6NRj	N/A
11	119038285	122082543	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
12	30000000	27585493	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
12	27585493	85015902	CBA/J	Homozygous
12	85015902	88650858	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
12	88650858	120129022	CBA/J	Homozygous
13	30000000	40278277	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
13	40278277	67442927	C57BL/6J and C57BL/6NRj	N/A
13	67442927	120421639	CBA/J	Homozygous
14	30000000	24355636	CBA/J	Homozygous
14	24355636	103377147	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
14	103377147	124902244	C57BL/6J and C57BL/6NRj	N/A
15	30000000	36473640	CBA/J	Homozygous
15	36473640	104043685	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
16	30000000	20813513	C57BL/6J and C57BL/6NRj	N/A
16	20813513	29701002	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
16	29701002	98207768	CBA/J	Homozygous
17	30000000	47545390	C57BL/6J and C57BL/6NRj	N/A
17	47545390	74502727	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
17	74502727	94987271	C57BL/6J and C57BL/6NRj	N/A
18	30000000	15685654	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
18	15685654	20363699	Unexplained	Heterozygous
18	20363699	27036500	CBA/J	Homozygous
18	27036500	69337106	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
18	69337106	90702639	CBA/J	Homozygous

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	19	30000000	61431566	C57BL/6J and C57BL/6NRj	N/A
	X	30000000	29836043	C57BL/6J and C57BL/6NRj	N/A
	X	29836043	94918419	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	X	94918419	136441962	CBA/J	Homozygous
	X	136441962	138881041	C57BL/6J and C57BL/6NRj and CBA/J	Heterozygous
	X	138881041	171031299	C57BL/6J and C57BL/6NRj	N/A
	MT	0	0	IBD	Hemizygous