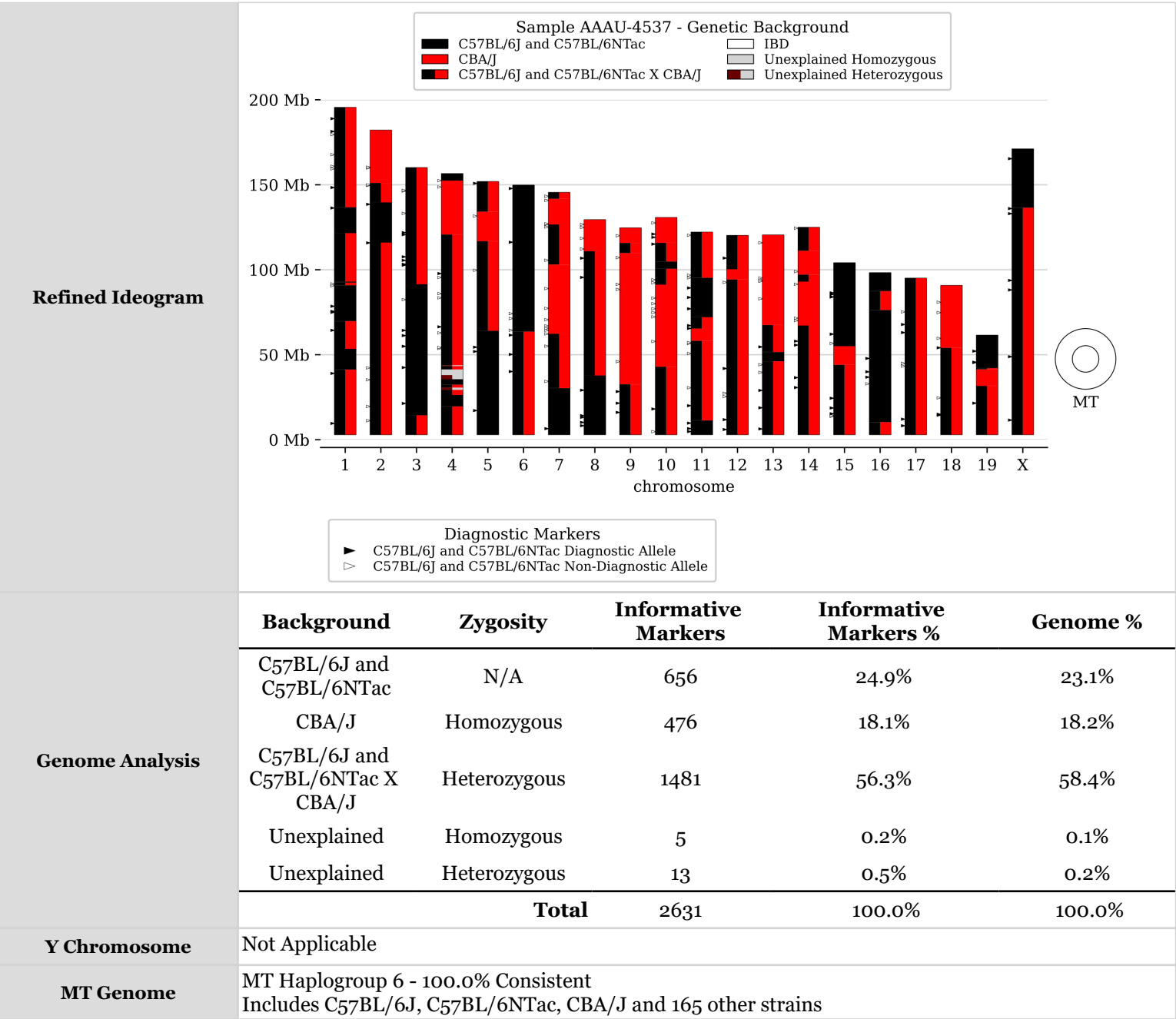


MiniMUGA Background Analysis v2.3.1

Sample ID	B398																		
Neogen ID	AAAU-4537																		
Summary	The genotype of this sample is of excellent quality. It is female and outbred , and likely a mix of C57BL/6J and C57BL/6NTac and CBA/J . Clustering of unexplained markers is evidence of an additional background strain.																		
	Diagnostic SNPs are likely explained by the presence of the background strains <ul style="list-style-type: none">Solution 1: 129S5/SvEvBrd and C57BL/6J and C57BL/6NRj<ul style="list-style-type: none">C57BL/6J: 94 / 163 (57.7%)C57BL/6NRj: 7 / 35 (20.0%)129S5/SvEvBrd: 1 / 5 (20.0%)Solution 2: 129S5/SvEvBrd and C57BL/6JRj and C57BL/6NRj<ul style="list-style-type: none">C57BL/6JRj: 94 / 163 (57.7%)C57BL/6NRj: 7 / 35 (20.0%)129S5/SvEvBrd: 1 / 5 (20.0%)																		
	NOTE: There is a discrepancy between the diagnostic backgrounds detected and the primary and secondary background analysis (CBA/J, C57BL/6J, C57BL/6NTac). This is uncommon and should be investigated further.																		
	The sample may contain the following genetic constructs: bpA																		
	WARNING: <ul style="list-style-type: none">There is a discrepancy between the diagnostic backgrounds detected ((129S5/SvEvBrd and C57BL/6J and C57BL/6NRj) or (129S5/SvEvBrd and C57BL/6JRj and C57BL/6NRj)) and the primary background (C57BL/6J and C57BL/6NTac) and secondary background (CBA/J). This is uncommon and should be investigated further.The presence of a single diagnostic heterozygous call for a single inbred strain should be treated with caution.This sample likely has more than 2 genetic backgrounds (unexplained regions and/or fractured ideogram). The strain selected for secondary background may be incorrect. The estimation of the contribution of primary and secondary background are likely incorrect. This can potentially be addressed with input from the user.																		
Genotyping Quality	Excellent (60 N calls) All reported results are dependent on genotyping quality.																		
Chromosomal Sex	XX																		
Inbreeding Estimate	41.4% 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	BlastR	bpA	Cas9	chlor	cHS4	Cre	DTA	Flp	g_FP	hCMV_a	hCMV_b	hTK_pr	iCre	IRES	Luc	r_FP	rtTA	SV40	tTA
	-	?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* This sample has abnormal raw intensity values. Therefore, positive or questionable returns for constructs should be treated with caution.																			

MiniMUGA Background Analysis v2.3.1



Diagnostic Markers

- ▶ C57BL/6J and C57BL/6NTac Diagnostic Allele
- ▷ C57BL/6J and C57BL/6NTac Non-Diagnostic Allele

MiniMUGA Background Analysis v2.3.1

Backgrounds Detected (Diagnostic Alleles)	Diagnostic Alleles Observed				
	Diagnostic Class	Homozygous	Heterozygous	Potential	% Observed
	C57BL/6J, C57BL/6JJicTac, C57BL/6JRj	8	55	102	61.8%
	C57BL/6J, C57BL/6JEiJ, C57BL/6JJicTac, C57BL/6JRj	4	10	21	66.7%
	C57BL/6J, C57BL/6JRj	1	12	31	41.9%
	C57BL/6NJ, C57BL/6NRj, C57BL/6NTac	0	3	10	30.0%
	C57BL/6NRj, C57BL/6NTac	0	3	15	20.0%
	129S5/SvEvBrd	0	1	5	20.0%
	B6N-Tyr<c-Brd>/BrdCrCrl, C57BL/6J, C57BL/6JEiJ, C57BL/6JJicTac, C57BL/6JRj	0	1	1	100.0%
	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: 129S5/SvEvBrd and C57BL/6J and C57BL/6NRj<ul style="list-style-type: none">C57BL/6J: 94 / 163 (57.7%)C57BL/6NRj: 7 / 35 (20.0%)129S5/SvEvBrd: 1 / 5 (20.0%)Solution 2: 129S5/SvEvBrd and C57BL/6JRj and C57BL/6NRj<ul style="list-style-type: none">C57BL/6JRj: 94 / 163 (57.7%)C57BL/6NRj: 7 / 35 (20.0%)129S5/SvEvBrd: 1 / 5 (20.0%)					
	Chromosome	Start (Mb)	Stop (Mb)	Background	Zygosity
	1	3000000	41199760	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	1	41199760	53457225	C57BL/6J and C57BL/6NTac	N/A
	1	53457225	69700765	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	1	69700765	90903197	C57BL/6J and C57BL/6NTac	N/A
	1	90903197	92392684	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	1	92392684	93042662	C57BL/6J and C57BL/6NTac	N/A
	1	93042662	121519847	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	1	121519847	136798402	C57BL/6J and C57BL/6NTac	N/A
	1	136798402	195471971	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	2	3000000	115970567	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	2	115970567	139631657	C57BL/6J and C57BL/6NTac	N/A
	2	139631657	151062687	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous

MiniMUGA Background Analysis v2.3.1

Diplotype Intervals	2	151062687	182113224	CBA/J	Homozygous
	3	30000000	14328941	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	3	14328941	91461564	C57BL/6J and C57BL/6NTac	N/A
	3	91461564	160039680	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	4	30000000	19515600	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	4	19515600	26280383	C57BL/6J and C57BL/6NTac	N/A
	4	26280383	29346519	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	4	29346519	30650814	Unexplained	Heterozygous
	4	30650814	32327128	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	4	32327128	35563307	C57BL/6J and C57BL/6NTac	N/A
	4	35563307	37995481	Unexplained	Heterozygous
	4	37995481	41348396	Unexplained	Homozygous
	4	41348396	43372387	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	4	43372387	43819249	Unexplained	Heterozygous
	4	43819249	120738488	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	4	120738488	152440879	CBA/J	Homozygous
	4	152440879	156508116	C57BL/6J and C57BL/6NTac	N/A
	5	30000000	64102638	C57BL/6J and C57BL/6NTac	N/A
	5	64102638	116795433	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	5	116795433	134172373	CBA/J	Homozygous
	5	134172373	151834684	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	6	30000000	63548966	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	6	63548966	149736546	C57BL/6J and C57BL/6NTac	N/A
	7	30000000	30335112	C57BL/6J and C57BL/6NTac	N/A
	7	30335112	62277367	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	7	62277367	103084424	CBA/J	Homozygous
	7	103084424	126580094	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	7	126580094	141750158	CBA/J	Homozygous
	7	141750158	145441459	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	8	30000000	37790271	C57BL/6J and C57BL/6NTac	N/A
	8	37790271	110881875	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	8	110881875	129401213	CBA/J	Homozygous

MiniMUGA Background Analysis v2.3.1

	9	3000000	32605981	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	9	32605981	109855467	CBA/J	Homozygous
	9	109855467	115715944	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	9	115715944	124595110	CBA/J	Homozygous
	10	3000000	42917049	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	10	42917049	91235291	CBA/J	Homozygous
	10	91235291	100561092	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	10	100561092	104861956	C57BL/6J and C57BL/6NTac	N/A
	10	104861956	115781736	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	10	115781736	130694993	CBA/J	Homozygous
	11	3000000	11383915	C57BL/6J and C57BL/6NTac	N/A
	11	11383915	58168384	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	11	58168384	65400332	CBA/J	Homozygous
	11	65400332	72044583	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	11	72044583	95314593	C57BL/6J and C57BL/6NTac	N/A
	11	95314593	122082543	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	12	3000000	94246475	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	12	94246475	100284662	CBA/J	Homozygous
	12	100284662	120129022	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	13	3000000	46136691	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	13	46136691	51605798	C57BL/6J and C57BL/6NTac	N/A
	13	51605798	67442927	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	13	67442927	120421639	CBA/J	Homozygous
	14	3000000	67152629	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	14	67152629	93002544	CBA/J	Homozygous
	14	93002544	97106405	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	14	97106405	111185375	CBA/J	Homozygous
	14	111185375	124902244	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	15	3000000	44010563	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	15	44010563	55016741	CBA/J	Homozygous
	15	55016741	104043685	C57BL/6J and C57BL/6NTac	N/A
	16	3000000	10284757	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous

MiniMUGA Background Analysis v2.3.1

	16	10284757	76315797	C57BL/6J and C57BL/6NTac	N/A
	16	76315797	87403166	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	16	87403166	98207768	C57BL/6J and C57BL/6NTac	N/A
	17	30000000	94987271	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	18	30000000	54023745	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	18	54023745	90702639	CBA/J	Homozygous
	19	30000000	31636352	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	19	31636352	41403951	CBA/J	Homozygous
	19	41403951	42043276	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	19	42043276	61431566	C57BL/6J and C57BL/6NTac	N/A
	X	30000000	136441962	C57BL/6J and C57BL/6NTac and CBA/J	Heterozygous
	X	136441962	171031299	C57BL/6J and C57BL/6NTac	N/A
	MT	o	o	IBD	Hemizygous