${\bf MiniMUGA~Background~Analysis~v0008}$

Sample ID	Shiota/GCGRSR CR.58								
Neogen ID	AAAA-6021								
	The genotype of this sample is of excellent quality. It is male and close to inbred, and likely a mix of multiple C57BL/6 substrains and $129S6/SvEvTac$.								
Summary	${\rm Diagnostic~SNPs~indicate~the~presence~of~the~background~strain~groups~C57BL/6~and~the~substrains~C57BL/6J.}$								
	The sample contains the following genetic constructs: Bovine growth hormone poly A signal sequence, Cre recombinase, hCMV enhancer version a, hCMV enhancer version b, "Reddish" fluorescent protein (tdTomato, mCherry)								
Genotyping Quality	Excellent (2 N calls) All reported results are dependent on genotyping quality.								
Chromosomal Sex	XY								
Inbreeding Estimate	Close to Inbred (66 H calls at autosc	omal, X, and PA	R chromosome marl	xers)					
Inbreeding and	Po	60 or		280					
	Odality Calls) Go Go	ole	jen ID AAAA-6021]			446 234			
Genotyping Quality (Plot)	Go Excelle	od	/			91			
(1 100)		Inbred	Close to Inbred Inbreeding (Outbred				
Constructs Detected	BlastR bpA Cas9 chlor Cre D		IV_a hCMV_b hT	CK_pr iCre	e IRES Luc r	_FP rtTA	SV40 tT		
Drimony Dogleground			+ +			+ -			
(Autosomes,	Strain multiple C57BL/6 substrains	Total 9721	Consistent 9245 (99.4%)	Inconsiste 1 (0.0%)			Excluded		
(Autosomes, X Chromosome)		Total	Consistent	1 (0.0%)		.6%)			
(Autosomes, X Chromosome)	$\frac{-}{\text{multiple C57BL/6 substrains}}$	Total 9721	Consistent 9245 (99.4%)	1 (0.0%)	56 (0	.6%)	419		
(Autosomes, X Chromosome) Secondary Background (Autosomes,	multiple C57BL/6 substrains Strain	Total 9721 Total 57	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered	1 (0.0%)	56 (0 Unexplained 2 (0.0%)	.6%)	419 Excluded		
(Autosomes, X Chromosome) Secondary Background (Autosomes,	$\frac{\text{multiple C57BL/6 substrains}}{\text{Strain}}$ $\frac{12986/\text{SvEvTac}}{}$	Total 9721 Total 57 55 Clustered	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered	1 (0.0%)	56 (0 Unexplained 2 (0.0%) 0 Clustered	.6%)	419 Excluded		
(Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	multiple C57BL/6 substrains Strain 129S6/SvEvTac Primary	Total 9721 Total 57 55 Clustered	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered	1 (0.0%)	56 (0 Unexplained 2 (0.0%) 0 Clustered	.6%)	419 Excluded		
(Autosomes, X Chromosome) Gecondary Background (Autosomes, X Chromosome)	multiple C57BL/6 substrains Strain 129S6/SvEvTac Primary 200 Mb -	Total 9721 Total 57 55 Clustered Seconda	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered Try Heter	1 (0.0%) d ed rozygous 2 13 14 15	56 (0 Unexplained 2 (0.0%) 0 Clustered	lained	419 Excluded		
(Autosomes, X Chromosome) Gecondary Background (Autosomes, X Chromosome)	multiple C57BL/6 substrains Strain 129S6/SvEvTac Primary 200 Mb -	Total 9721 Total 57 55 Clustered Seconda	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered The second of the second	1 (0.0%) d ed rozygous 2 13 14 15	56 (0 Unexplained 2 (0.0%) 0 Clustered Unexp	lained	419 Excluded		
(Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain 129S6/SvEvTac Primary 200 Mb - 100 Mb -	Total 9721 Total 57 55 Clustered Seconda 2 3 4 5 6	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered The second of	1 (0.0%) d ed ed cozygous 2 13 14 15 e iagnostic Al	Unexplained 2 (0.0%) 0 Clustered Unexp 16 17 18 19 2	lained X	419 Excluded 0 (0.0%)		
(Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain 129S6/SvEvTac Primary 200 Mb - 100 Mb - 1 Substrains	Total 9721 Total 57 55 Clustered Seconda 2 3 4 5 6	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered The second of the second	1 (0.0%) d ed cozygous 2 13 14 15 e iagnostic Al omozygous 144	Unexplained 2 (0.0%) 0 Clustered Unexp 16 17 18 19 2	lained Potential	419 Excluded 0 (0.0%) % Observe		
X Chromosome) Secondary Background (Autosomes,	Strain 129S6/SvEvTac Primary 200 Mb - 100 Mb -	Total 9721 Total 57 55 Clustered Seconda 2 3 4 5 6	Consistent 9245 (99.4%) Explained 55 (0.6%) 55 Clustered The second of the second	1 (0.0%) d ed cozygous 2 13 14 15 e iagnostic Al omozygous 144	Unexplained 2 (0.0%) 0 Clustered Unexp 16 17 18 19 2	lained Potential	419 Excluded 0 (0.0%) % Observe		

${\bf MiniMUGA~Background~Analysis~v0008}$

Sample ID	Shiota/GCGRSR CR.59								
Neogen ID	AAAA-6022								
Summary	The genotype of this sample is of excellent quality. It is male and inbred, and likely a mix of multiple C57BL/6 substrains and $129S6/SvEvTac$.								
	${\it Diagnostic~SNPs~indicate~the~presence~of~the~background~strain~groups~C57BL/6~and~the~substrains~C57BL/6J.}$								
	The sample contains the follow	ving genetic construc	ts: Cre recombinase						
Genotyping Quality	Excellent (3 N calls) All reported results are dependent	lent on genotyping q	uality.						
Chromosomal Sex	XY								
Inbreeding Estimate	Inbred (23 H calls at autosoma	l, X, and PAR chron	nosome markers)						
		. 60		280					
Inbreeding and	iit Slls Ouest	Poor ionable		 		446			
Genotyping Quality	Quality (N Calls)	Good Neogen I	[D AAAA-6022]/						
(Plot)	Ex	cellent Inbred	Close to Inbred		Outbred	91 			
			Inbreeding						
Constructs Detected	BlastR bpA Cas9 chlor C	ro DTA g FP hCl	M37 - 1 CDM37 1 - 17	FK nn :Cnc	DES Inc.	FD **+TA	SV40 +T		
Constructs Detected	Blastic Spir Cast Chief C.	ie DIA g_FI noi	wiv_a ncwiv_b n	rk_pr icre	e IILES Luc I	_FF IUIA	5 5 40 (1)		
Constructs Detected			MV_a nCMV_b n			FF TUTA			
Primary Background	Strain	Total	Consistent	Inconsiste			Excluded		
		Total			 nt Hetero				
Primary Background (Autosomes,	Strain	Total	Consistent	Inconsiste	 nt Hetero		 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes,	Strain multiple C57BL/6 subst	Total	Consistent 9289 (99.9%) Explaine 11 (0.1%	Inconsiste 1 (0.0%) d	11 (0 Unexplained 1 (0.0%)	zygous	Excluded		
Primary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 subst	Total Total Total	Consistent 9289 (99.9%) Explaine	Inconsiste 1 (0.0%) d	nt Hetero 11 (0 Unexplained	zygous	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes,	Strain multiple C57BL/6 subst	Total Total Total 12 11 Clustered	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster	Inconsiste 1 (0.0%) d) ed	11 (0 Unexplained 1 (0.0%)	zygous 0.1%)	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes,	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac	Total Total Total 12 11 Clustered	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster	Inconsiste 1 (0.0%) d) ed	11 (0 Unexplained 1 (0.0%) 0 Clustered	zygous 0.1%)	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima	Total Total Total 12 11 Clustered	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster	Inconsiste 1 (0.0%) d) ed	11 (0 Unexplained 1 (0.0%) 0 Clustered	zygous 0.1%)	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes,	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb -	Total Total Total 12 11 Clustered	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster	Inconsiste 1 (0.0%) d) ed	11 (0 Unexplained 1 (0.0%) 0 Clustered	zygous 0.1%)	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb -	Total Total Total 12 11 Clustered Ty Second	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster Hete	Inconsiste 1 (0.0%) d) red rozygous	nt Hetero 11 (0 Unexplained 1 (0.0%) 0 Clustered Unexp	zygous	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb -	Total Total Total 12 11 Clustered Ty Second	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster Hete	Inconsiste 1 (0.0%) d) red rozygous	11 (0 Unexplained 1 (0.0%) 0 Clustered	zygous	Excluded 420 Excluded		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb 100 Mb	Total Total 12 11 Clustered 12 12 11 2 3 4 5 6	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster Hete 7 8 9 10 11 1 chromosom	Inconsiste 1 (0.0%) d) ed rozygous 2 13 14 15	nt Hetero 11 (0 Unexplained 1 (0.0%) 0 Clustered Unexp	zygous 0.1%)	Excluded 420 Excluded 0 (0.0%)		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb 100 Mb	Total Total Total 12 11 Clustered Ty Second	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster Hete 7 8 9 10 11 1 chromosom	Inconsiste 1 (0.0%) d) ed rozygous 2 13 14 15	11 (0 Unexplained 1 (0.0%) 0 Clustered Unexp	zygous 0.1%)	Excluded 420 Excluded 0 (0.0%)		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome)	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb 100 Mb	Total Total 12 11 Clustered 12 12 11 2 3 4 5 6	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster Hete 7 8 9 10 11 1 chromosom	Inconsiste 1 (0.0%) d) ed rozygous 2 13 14 15	nt Hetero 11 (0 Unexplained 1 (0.0%) 0 Clustered Unexp	zygous 0.1%)	Excluded 420 Excluded 0 (0.0%)		
Primary Background (Autosomes, X Chromosome) Secondary Background (Autosomes, X Chromosome) Background Ideogram	Strain multiple C57BL/6 substrain Strain 129S6/SvEvTac Prima 200 Mb 100 Mb	Total rains 9721 Total 12 11 Clustered ry Second 1 2 3 4 5 6	Consistent 9289 (99.9%) Explaine 11 (0.1% 11 Cluster Hete 7 8 9 10 11 1 chromosom	Inconsiste 1 (0.0%) d rozygous 2 13 14 15 iagnostic All fomozygous 142	nt Hetero 11 (0 Unexplained 1 (0.0%) 0 Clustered Unexp 16 17 18 19	zygous 0.1%) lained X Potential	Excluded 420 Excluded 0 (0.0%)		