

Supplementary Table 1. Primer sequences, annealing temperatures and expected PCR-product lengths. The intact floxed allele produces a 451 bp product with the LoxP1 primer set, whereas Cre excision results in a 317 bp product.

detected elements	primers	Sequence 5'→ 3'	T _M (°C)	fragment size (bp)
<i>Genotyping</i>				
Lox P1	GS-F 2838 GS-R 3260	ACCCCTTGAAAGCAGAGTGA GAAAAGCCTTGCAAACCAAA	60	WT allele: 423 Flox allele: 451
LacZ	LacZ-F LacZ-R	GCATCGAGCTGGGTAATAAGCGTTGGCAAT ACTGCAACAACGCTGCTTCGGCCTGGTAAT	69	255
Cre	Cre-F Cre-R	GGTTCGCAAGAACCCTGATGGACAT GCTAGAGCCTGTTTTGCACGTTCA	63	342
<i>Cre-excision</i>				
Cre excision	GS-F 2838 GS-R 10587	ACCCCTTGAAAGCAGAGTGA TGGCACAATGTAGGATCCAG	60	null allele: 317
<i>Quantitative-PCR</i>				
GS-mRNA	GS F 3007 GS R 4740	TGGCCACCTCAGCAAGTT GGCTCCGGTTATACTTG	55	
18S rRNA	18S-F 18S-R	TTCGGAACTGAGGCCATGAT CGAACCTCCGACTTTCGTTCT	58	

Supplementary Table 2. Arterial and tissue concentrations of amino acids after 0, 4, 20 and 36 hours of fasting. The values are expressed as $\mu\text{mol/L}$ plasma or kg muscle.

Plasma	fed				4-hour-fasting				20-hour-fasting				36-hour-fasting			
	control		GS-KO/M		control		GS-KO/M		control		GS-KO/M		control		GS-KO/M	
	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
ASP	108	22	33	13	NA	.	NA	.	73	16	29	7	41	15	14	4
GLU	26	4	48	9	61	7	63	7	25	8	25	9	7	4	12	4
ASN	73	18	33	8	53	4	48	3	45	6	34	4	32	3	32	2
SER	402	80	178	38	112	4	127	4	298	50	184	30	166	36	58	10
GLN	582	33	484	56	586	17	476	12	559	49	329	15	612	39	485	20
HIS	119	12	109	22	87	3	78	4	103	10	77	9	76	6	57	4
GLY	239	27	308	58	223	7	247	9	240	36	137	21	143	46	89	12
THR	223	22	190	30	129	4	150	7	197	17	149	13	134	11	132	8
ARG	110	10	120	24	128	5	128	7	107	15	80	8	67	8	63	3
ALA	477	40	387	55	324	18	279	21	397	50	247	23	263	24	241	16
VAL	224	13	233	5	207	8	263	11	209	13	229	6	282	24	175	12
MET	37	3	43	8	67	2	62	4	32	3	37	3	45	3	38	2
ILE	93	6	108	14	68	4	95	4	110	12	92	7	141	13	94	8
LEU	161	9	171	28	162	7	196	8	193	19	139	14	235	23	131	10
Muscle																
ASP	468	33	436	35	164	53	166	37	726	108	294	39	405	60	674	168
GLU	585	52	592	45	2150	178	1888	72	550	4	775	357	630	318	654	172
ASN	124	10	79	10	12	7	21	5	141	79	95	22	157	9	127	14
SER	416	94	276	45	NA	.	NA	.	1573	152	271	31	1874	388	455	183
GLN	1968	132	1165	66	1088	47	797	66	1581	599	844	133	2682	237	925	74
HIS	163	7	123	25	73	15	86	14	497	75	62	46	343	67	122	38
GLY	3850	295	3076	545	1451	125	1994	68	926	917	739	576	1530	545	1076	45
THR	385	27	234	35	291	59	259	45	471	100	266	39	295	99	201	14
ARG	220	23	160	17	114	20	90	17	573	340	294	32	877	76	565	159
ALA	2771	110	2582	148	1839	167	2157	73	1509	1131	1589	345	2128	281	2093	295
VAL	210	14	217	29	171	35	191	28	350	36	236	79	430	155	194	112
MET	68	2	61	3	55	3	52	5	75	36	82	2	67	12	77	3
ILE	90	5	102	3	50	13	71	10	184	11	118	41	154	25	80	34
LEU	266	20	420	93	344	121	490	111	620	93	227	103	520	50	330	249