

Library Number	RMK015
Library Name	Small Glutamate Library
Old Document Name	200730_DLG_Small_Glutamine_Library_HSC
Library Purpose	For assessing enrichment and depletion for Glutamate metabolism-related genes, ACLY, and ACSS2. CRISPR Screening library.
Location (Oligos)	MCN B3301 -20C, Dalton's Box
Designer Name	Greenwood, Dalton L
Designing Date	07/30/20209
Design Reference	Ferreira 2018, Genetics in Medicine; IEMBase
Usage Reference	

Species	Mouse (Mus musculus)
Total Gene #	15
Total Target #	70
Gene Group	
1. Negative Controls	10 Nontargeting controls (NTC)
2. Positive Controls	n/a
3. Acetate metabolism genes	2
4. Glutamate-metabolism Genes	13
Target Number	
1. Negative Controls	10*1=10
2. Positive Controls	n/a
3. Targeting genes	15*4=60

Note: Target selected from KEGG pathways

Gene name	Targeting sequence
Bcat2	ACGGAACGAGCCTCTACGTG
Bcat2	CAGGAACTATGGACCCACTG
Bcat2	GTGGAGTGG AATAACAAGGC
Bcat2	GCACAGAATGACGTACAGGA
Gfpt1	TGTGGCACAAGTTACCACGC
Gfpt1	AAGCTGCGGTCTTTCCCGTG
Gfpt1	GGAGAGAGGAGCCTTAACTG
Gfpt1	TCTGTTGTGAACACAATGAG
Gclc	TGTGCCGGTCCTTGACTGCG
Gclc	CAATATGAGGAAACGCCGGA
Gclc	AGAAACATCCGGCATCGGAG
Gclc	TGTAGATGATAGAACACGGG
Gls	CGACGCGTTCGGCAACAGCG
Gls	TGTACATCGCTATGTTGGGA
Gls	GATTGCGAACATCTGATCCC
Gls	ATATAACTCATCGATGTGTG
Got2	TGGAGGTCCCATTTC AACAT
Got2	TTTCTGCCCAAACCATCCTG
Got2	CATCCTCCTCACCTTCACCA
Got2	AGCTCACCTTCCGGACTG
Ctps	ATTGGCCATTAACCACAAGC
Ctps	ATACCAGTACGTCATTAACA
Ctps	GCCCACAAGAGCGATCGAGC
Ctps	TTAATACCCGTAGACGAAGA
Ctps2	GGATAGCATCAGTAATATGG
Ctps2	TTTGGTGTATTTACCAACCA
Ctps2	AAAAACCCACCTGTGGCACA
Ctps2	CTTCACAGCCATCTCAATGG
Slc1a4	GTCTGCAACCGATTACACAG
Slc1a4	TAGAGCCACTCCTAACACCA
Slc1a4	GATGCCACCCAGACGCCCGA
Slc1a4	ACCCACCAACACTCCCGACA
Acss2	GCTGGGAACCTACTACCCGG
Acss2	CAGAACGCCGGTGCAGCTCG
Acss2	AAGGGAAAATATTTCACTGAG
Acss2	GCATTGTGGTCAAACATCTG
Slc38a2	CCACCAAAGCAGCTTCCACG
Slc38a2	CTCAAGACTGCCAACGAAGG
Slc38a2	GCAGTGACAATGGAAGAATG
Slc38a2	GAGTTGAAGATGAAATAGCG
Cad	CGCAGGGGTACCCGACCGTG
Cad	AGGATTAGAACCTTTCTGTGG
Cad	ATGGTGAGTGCCACCAACAA

Gene name	Targeting sequence
Cad	CTCAGAAACTCTGTTACGGG
Acly	GAGAGAGATTGACCCCGACG
Acly	AGAGCGATTTCGAGATTACCA
Acly	TTGTCACCTGTACACGACGG
Acly	GGACGAAAAGCTGAATACCG
Slc38a1	ATACTTTGGTGTGCACGCGT
Slc38a1	TGCATGGTGTATGAGAAGCT
Slc38a1	TCACCATCACCACCAACACT
Slc38a1	AGATTGGCAGGACGGACGGG
Gls2	CGTCCGGTACTACCTCGGTG
Gls2	GGGGATCGGAATTACGCCAT
Gls2	AAAAGCAGGTCACCAAGTCG
Gls2	TGAGTCAGGCAGTGTTCATGG
Ppat	ACCTTGGAAATCGGACATACG
Ppat	ATAAGACGCCCGATGCAGAG
Ppat	TGATCACTCTGGGACTCGTG
Ppat	AGGGGTGTATGCGAGTAACT
BRDN0000737505	AAAAAGTCCGCGATTACGTC
BRDN0000737693	AAAACGGCTCGATCGGTGAT
BRDN0000737637	AAAACGTAATTATACCGAGC
BRDN0000738185	AAAATTGCACCTTCCCGGCC
BRDN0000737801	AAACCCCGCGCGGAGCGTC
BRDN0000737467	AAACCTAGCGTAGATTCGGC
BRDN0000737848	AAACGAGGCTGTTTCGTACAC
BRDN0000737609	AAACTCATACGTAGCGAATC
BRDN0000737434	AAACTCCCGTGTCAACCGAT
BRDN0000738254	AAAGACGTGCATTTCAGCGAG

