Supplemental Material

Tables

Table 1

Gene	Gated	Pos/Neg	Inferred?	Ref
acr-2	ACh	P		[1]
acr-3	ACh	P		[1]
acr-6	ACh	P	yes	
acr-7	ACh	P	yes	
acr-8	ACh	P	yes	
acr-9	ACh	P	yes	
acr-10	ACh	P	yes	
acr-11	ACh	P	yes	
acr-12	ACh	P		[2]
lev-8	ACh	P		[3]
acr-14	ACh	P	yes	
acr-15	ACh	P	yes	
acr-16	ACh	P		[4]
acr-19	ACh	P	yes	
acr-25	ACh	P	yes	
eat-2	ACh	P		[5]
lev-1	ACh	P		[6]
unc-29	ACh	P		[6]
unc-38	ACh	P		[6]
unc-63	ACh	P		[7]
unc-49	GABA	N		[8]
exp-1	GABA	P		[9]
lgc-35	GABA	P		[10]
lgc-36	GABA	P	yes	
lgc-37	GABA	N	yes	
lgc-38	GABA	N	yes	
avr-14	Glu	N		[11]
avr-15	Glu	N		[11]
glc-1	Glu	N		[12]
glc-2	Glu	N		[13]
glc-3	Glu	N		[14]
glc-4	Glu	N	yes	
acc-2	ACh	N		[15]
acc-3	ACh	N		[15]
acc-4	ACh	P	yes	

lgc-46	ACh	N		[16]
lgc-47	ACh	N	yes	
lgc-48	ACh	P	yes	
lgc-49	ACh	N		This study
ggr-1/lgc-57	choline, ACh	N		This study
ggr-2/lgc-58	choline, ACh	N		This study
lgc-39	ACh, tyramine, octopamine	N		This study
lgc-40	choline, ACh	N		This study
gab-1	GABA	N		[17]
acc-1	ACh	N		[15]
nmr-1	Glu	P		[18]
nmr-2	Glu	P		[19]
glr-1	Glu	P		[20]
glr-2	Glu	P		[20]
glr-3	Glu	P	Yes	
glr-4	Glu	P	Yes	
glr-5	Glu	P		[21]
glr-6	Glu	P	yes	
glr-7	Glu	P	yes	
glr-8	Glu	P	yes	

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Table 2

Strain No.	Description
AQ4728	him-5; ljEx1388[plgc-57::lgc-57::SL2GFP; punc-122:RFP]
PHX3594	lgc-40(syb3594)
PHX3536	lgc-57(syb3536)
PHX3562	lgc-58(syb3562)
AQ4614	ljEx1332[plgc-39(2kb)::lgc-39::SL2 GFP; punc-122::RFP]
AQ4427	ljEx1254[plgc-40(2kb)::mKate2::gpd-23'UTR; unc-122::gfp]
AQ4423	ljEx1252[plgc-57(2kb)::mKate2::gpd-23'UTR; unc-122::gfp]
AQ4377	ljEx1242[plgc-39(2kb)::mKate2::gpd-23'UTR; unc-122::gfp]
AQ4428	ljEx1255[plgc-58(2kb)::mKate2::gpd-23'UTR; unc-122::gfp]
AQ5072	ljEx1562[plgc-46::GFP::gpd-2UTR; punc-122::RFP]
OH15262	“NeuroPAL” otEx7057

AQ4657	lgc-39(lj121)
AQ4850	NeuroPal(otEx7057); IjEx1453 [plgc-33::lgc-33::SL2 GFP; punc-122::RFP]
AQ4837	NeuroPal(otEx7057); IjEx1449 [plgc-34::lgc-34::SL2 GFP;unc-122::RFP]
AQ4529	him-5(e1490); IjEx1299[plgc-48::gDNA lgc-48 3'UTR::SL2 mKate2;punc-122::GFP]
AQ4928	IjEx1498 [plgc-47(2kb)::lgc-47::SL2 GFP; unc-122::RFP]
AQ4849	NeuroPal(otEx7057); IjEx1453 [plgc-49::lgc-49::SL2 GFP; unc-122::RFP]

Note:
lgc-57 previously called *ggr-1*
lgc-58 previously called *ggr-2*

Figures

Figure S1

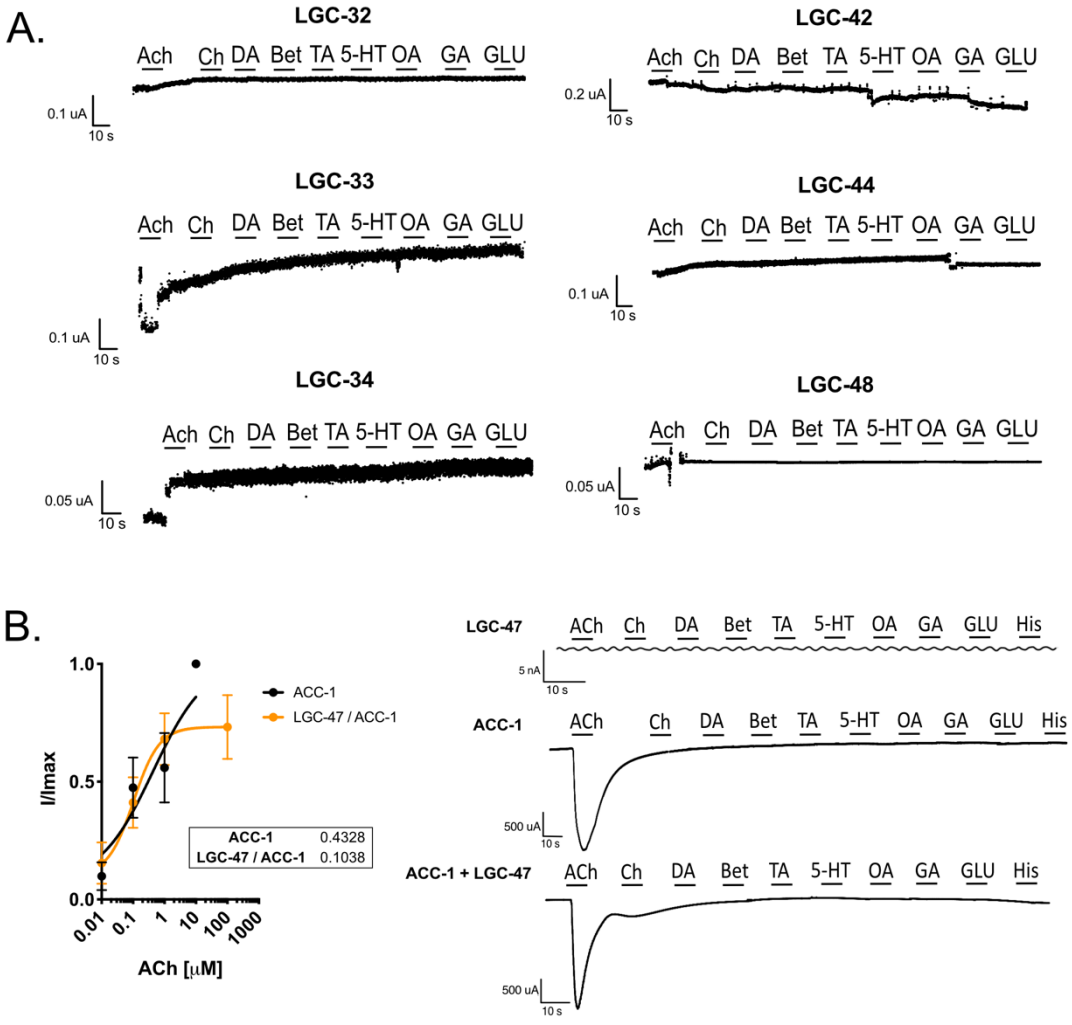

Figure S2

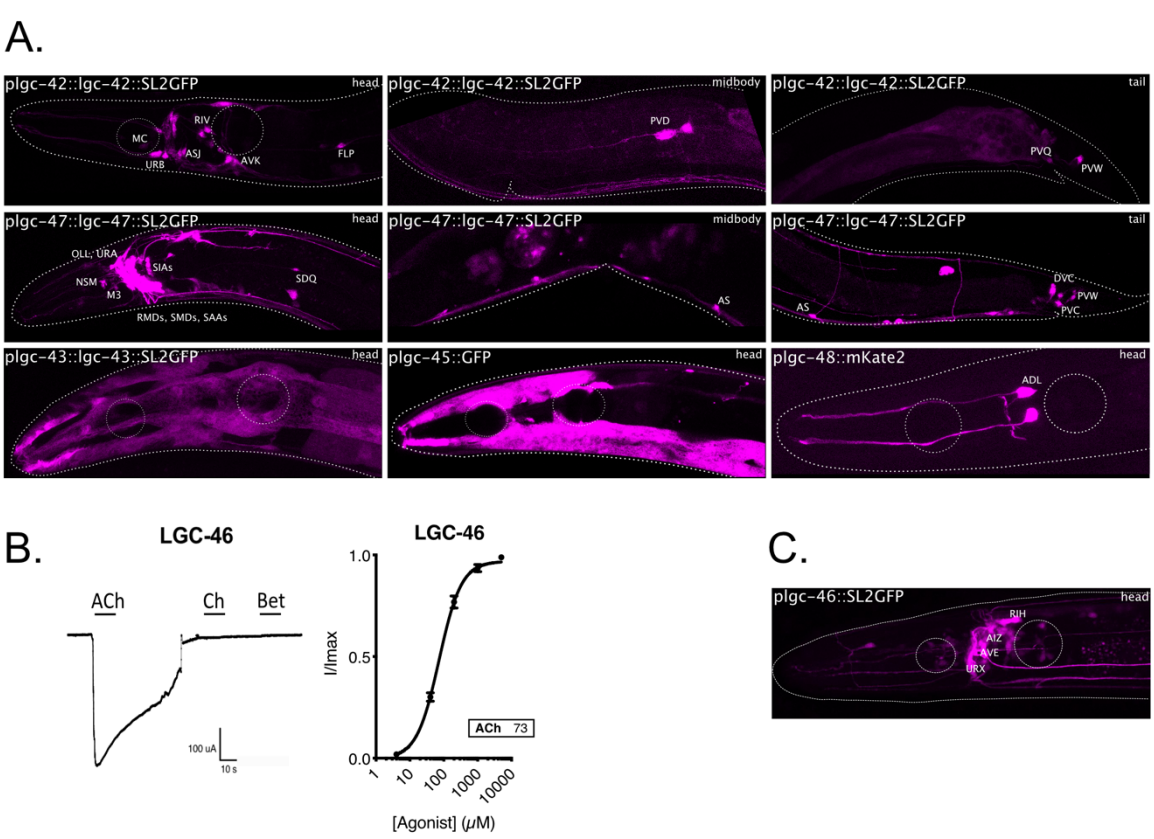
A.
plgc-42::lgc-42::SL2GFP
head
RIV
MC
ASJ
AVK
FLP
URB
plgc-42::lgc-42::SL2GFP
midbody
PVD
plgc-42::lgc-42::SL2GFP
tail
PVQ
PVW
plgc-47::lgc-47::SL2GFP
head
QLL, URA
SIAs
NSM
M3
SDQ
RMDs, SMDs, SAAs
plgc-47::lgc-47::SL2GFP
midbody
AS
plgc-47::lgc-47::SL2GFP
tail
DVE
PVW
PVC
AS
plgc-43::lgc-43::SL2GFP
head
plgc-45::GFP
head
plgc-48::mKate2
head
ADL
B.
LGC-46
ACh
Ch
Bet
100 uA
10 s
LGC-46
1.0
0.5
0.0
I/Imax
ACh 73
1
10
100
1000
10000
[Agonist] (μM)
C.
plgc-46::SL2GFP
head
RIH
AIZ
AVE
URX

Figure S3

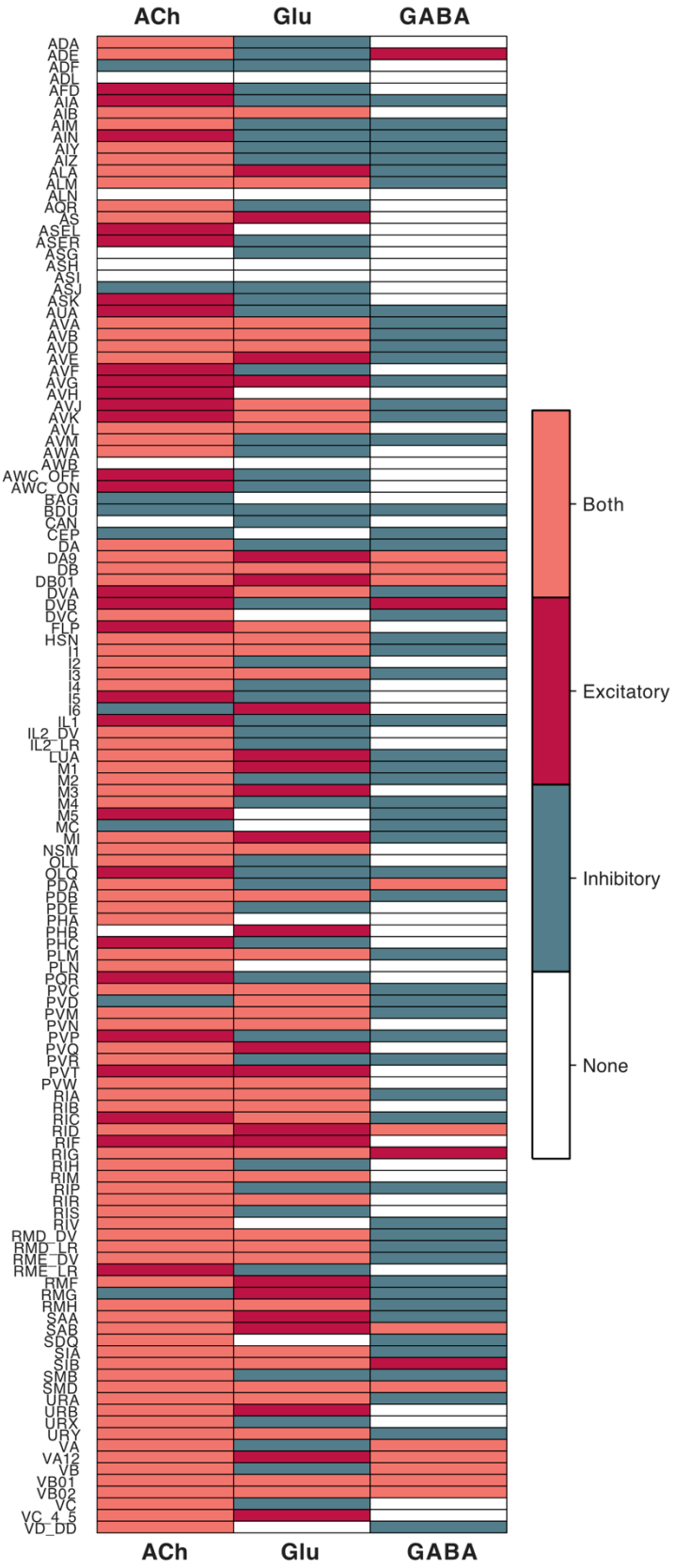
ACh
Glu
GABA
ADA
ADE
ADF
ADL
AFD
AIA
AIB
AIM
AIN
AIY
AIZ
ALA
ALM
ALN
AQR
AS
ASEL
ASER
ASG
ASH
ASI
ASJ
ASK
AUA
AVA
AVB
AVD
AVE
AVF
AVG
AVH
AVJ
AVK
AVL
AVM
AWA
AWB
AWC_OFF
AWC_ON
BAG
BDU
CAN
CEP
DA
DA9
DB
DB01
DVA
DVB
DVC
FLP
HSN
I1
I2
I3
I4
I5
I6
IL1
IL2_DV
IL2_LR
LUA
M1
M2
M3
M4
M5
MC
MI
NSM
OLL
OLQ
PDA
PDB
PDE
PHA
PHB
PHC
PLM
PLN
PQR
PVC
PVD
PVM
PVN
PVP
PVQ
PVR
PVT
PVW
RIA
RIB
RIC
RID
RIF
RIG
RIH
RIM
RIP
RIR
RIS
RIV
RMD_DV
RMD_LR
RME_DV
RME_LR
RMF
RMG
RMH
SAA
SAB
SDQ
SIA
SIB
SMB
SMD
URA
URB
URX
URY
VA
VA12
VB
VB01
VB02
VC
VC_4_5
VD_DD
Both
Excitatory
Inhibitory
None
ACh
Glu
GABA

Figure S4

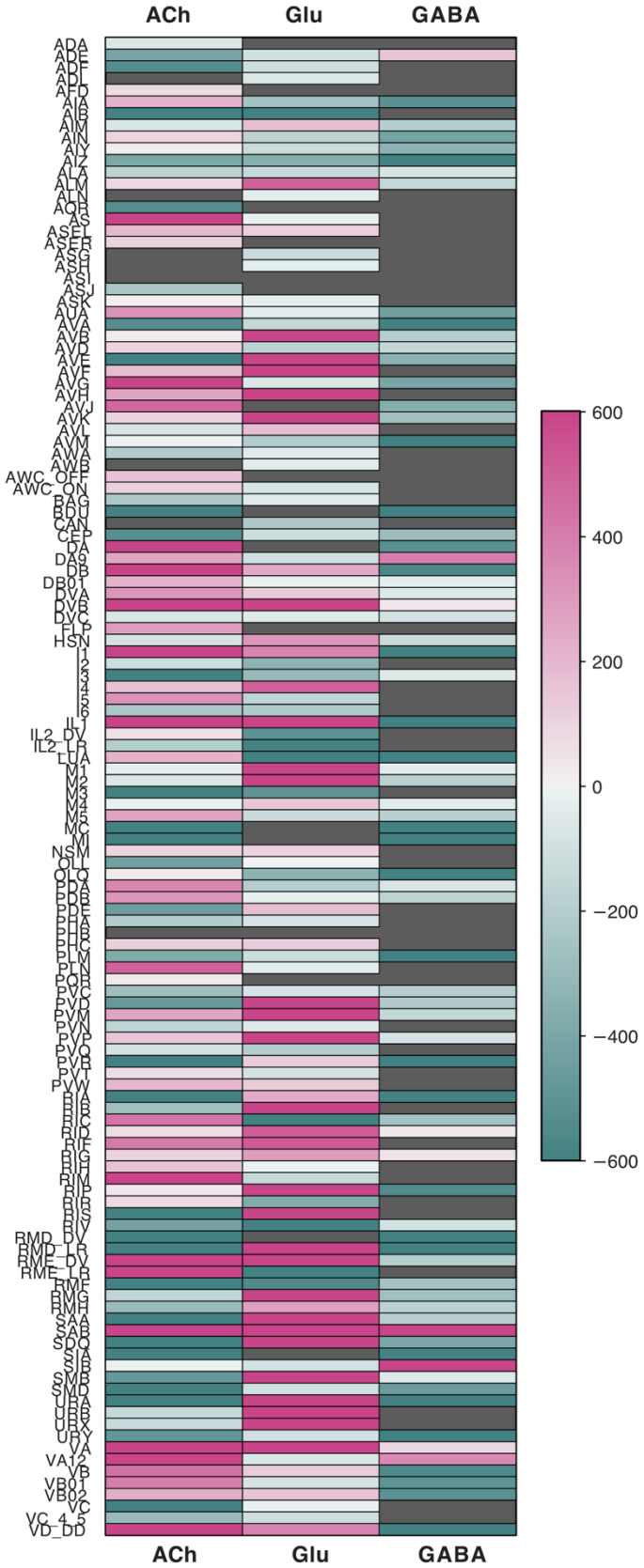

Figure S5

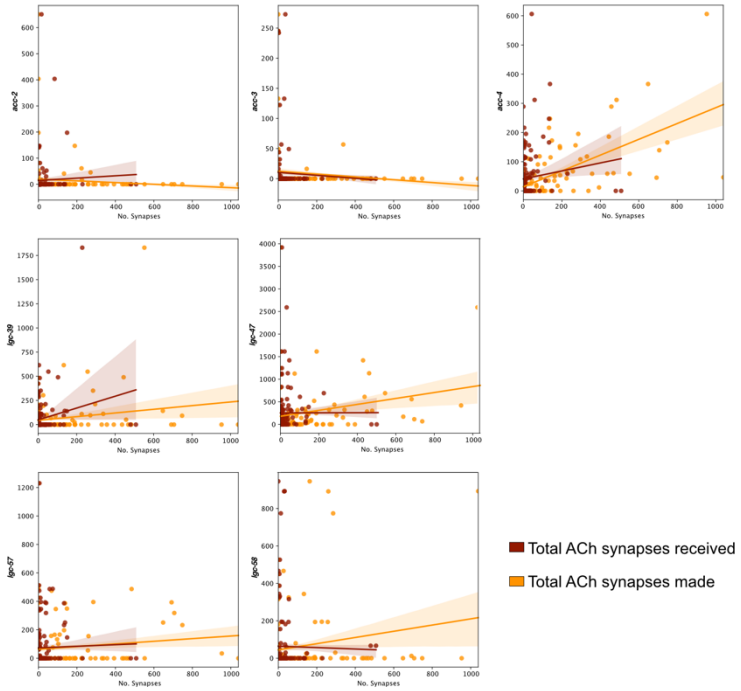

Figure S6