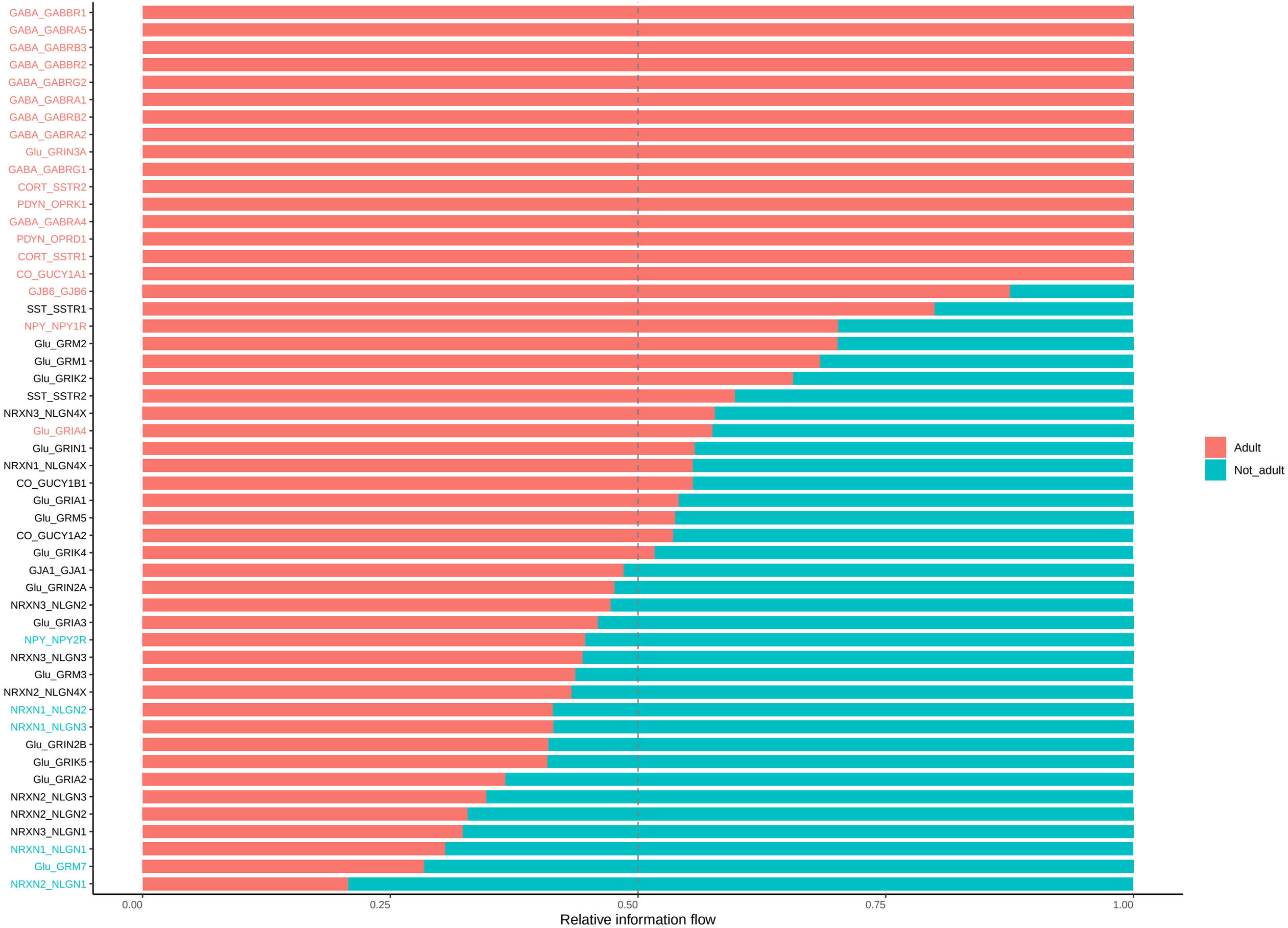
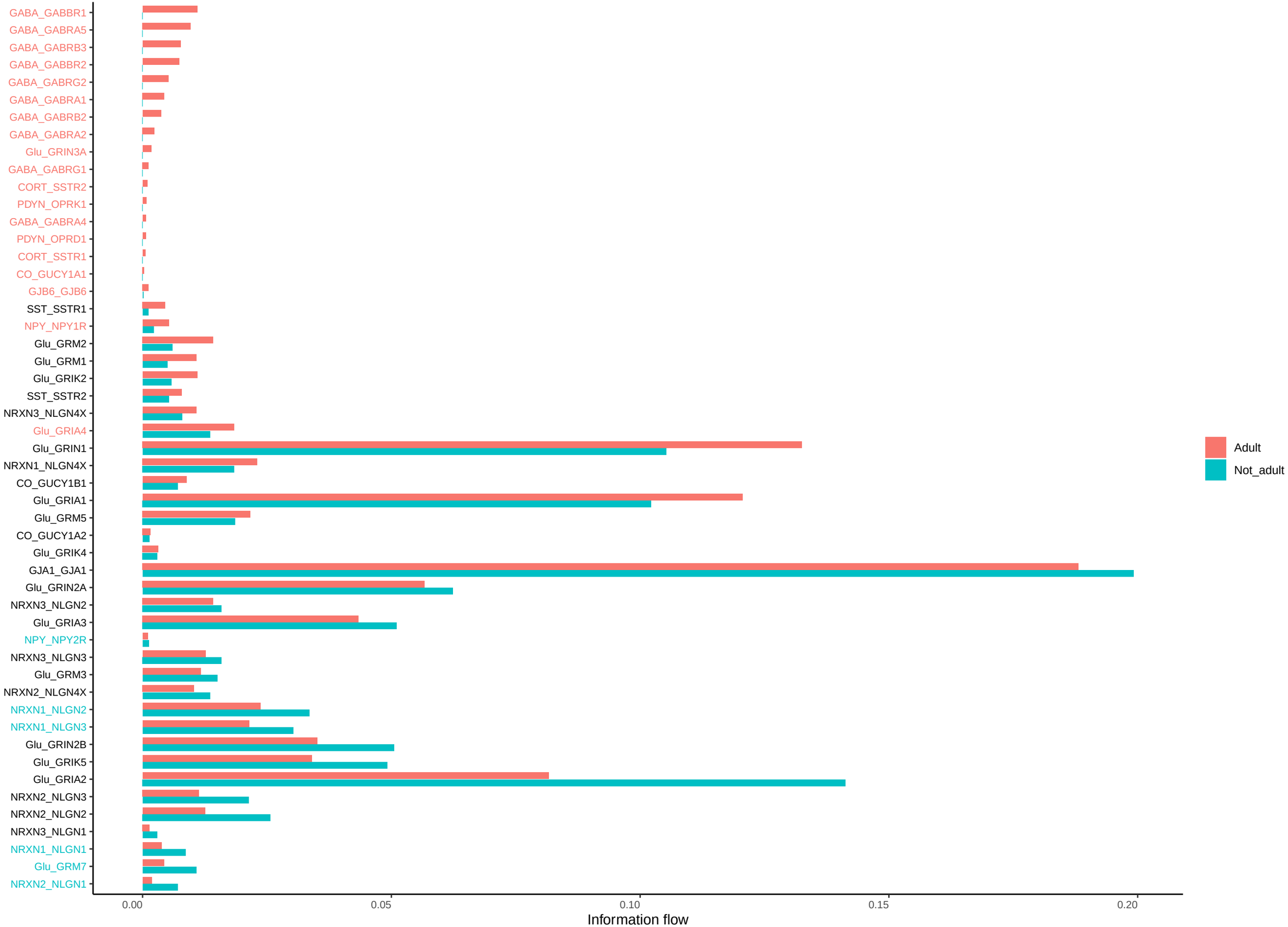
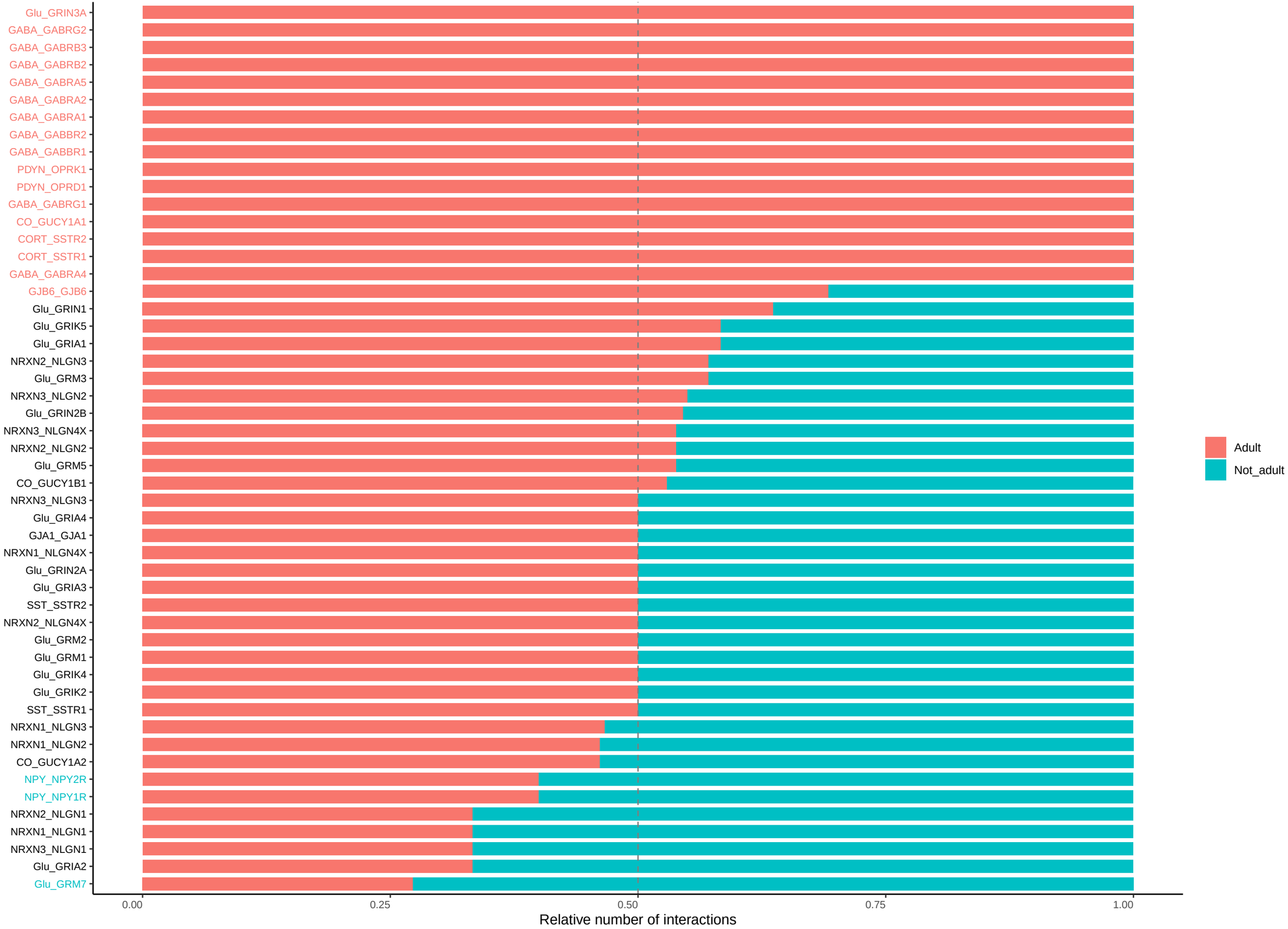
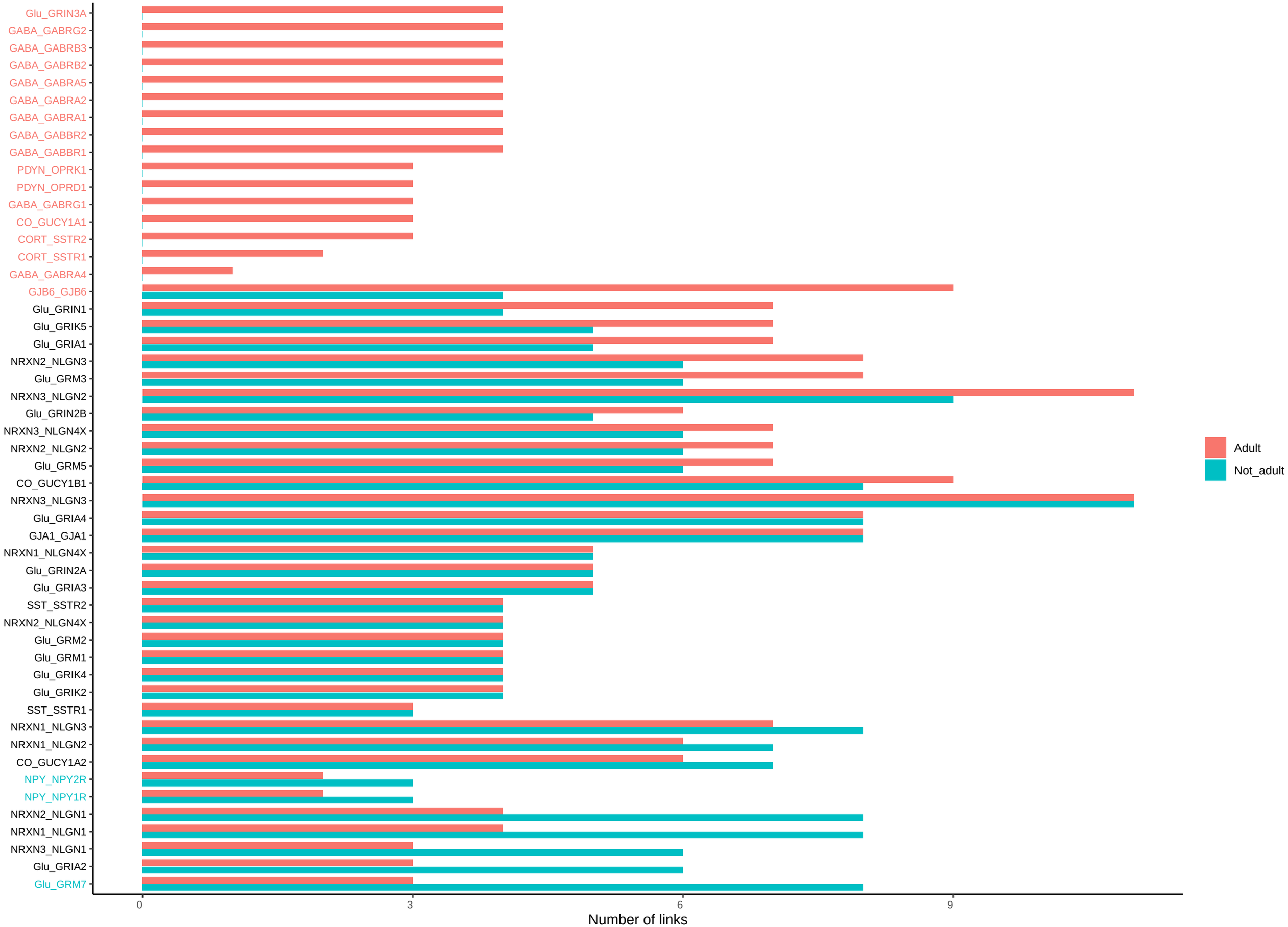
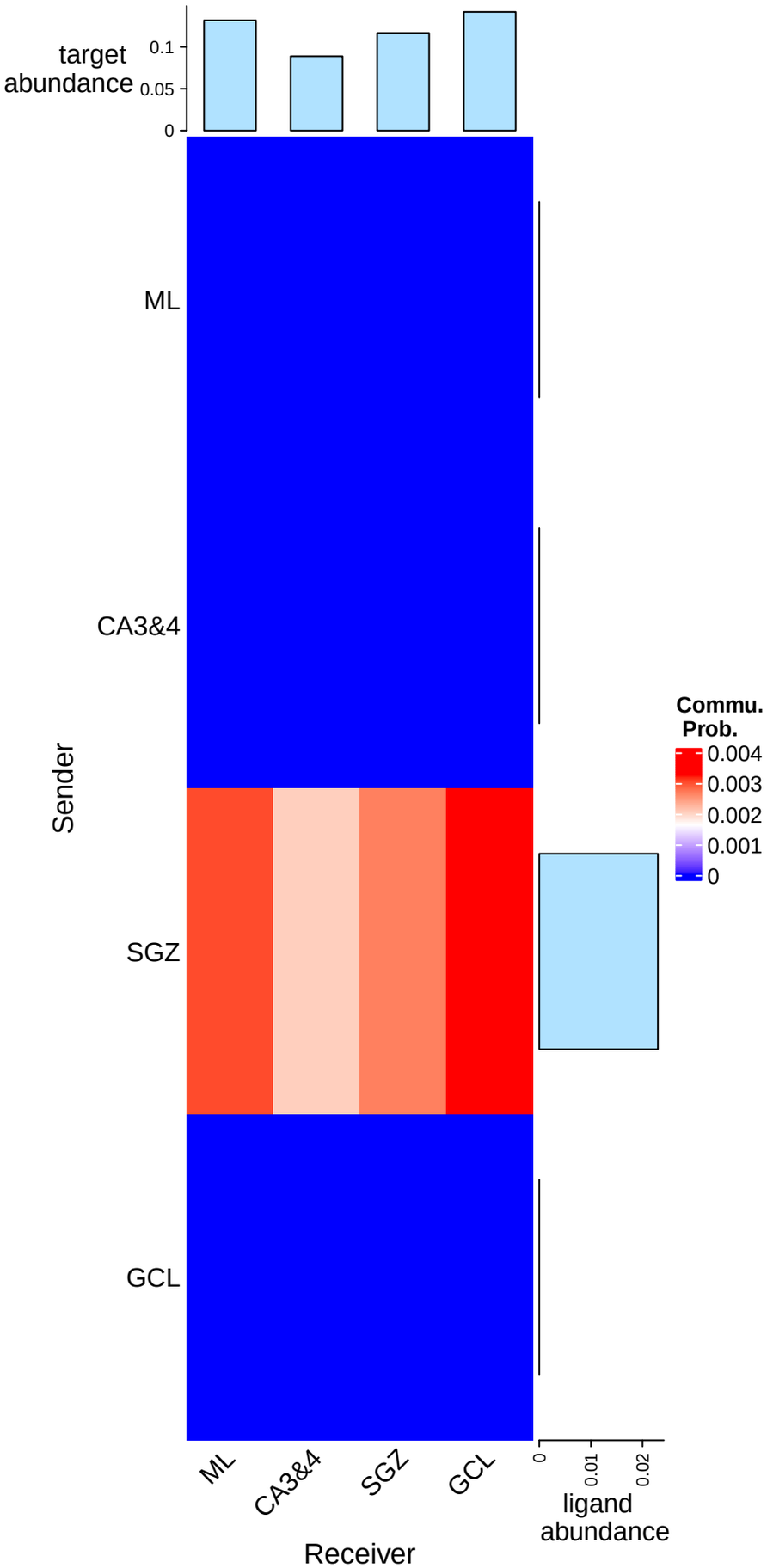
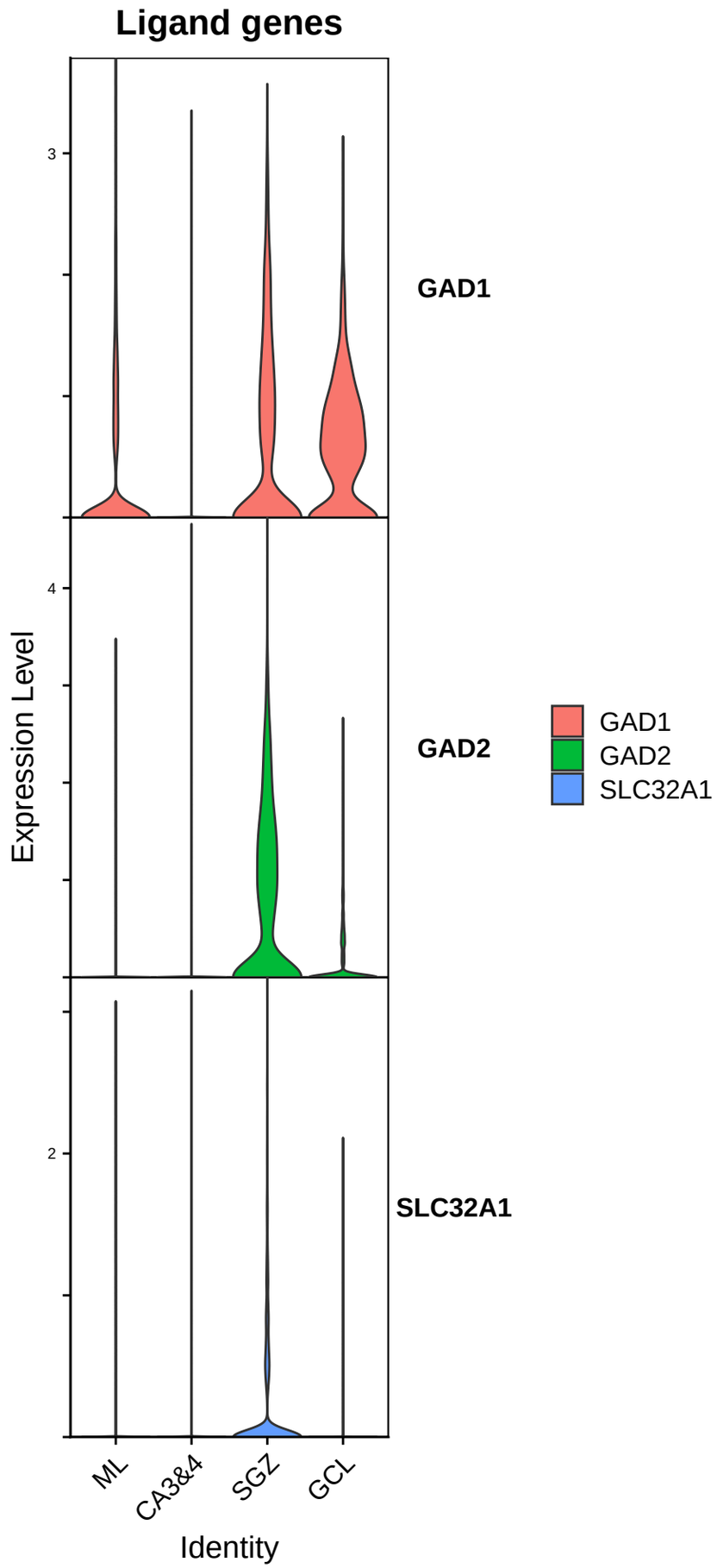

GABA_GABBR1
GABA_GABRA5
GABA_GABRB3
GABA_GABBR2
GABA_GABRG2
GABA_GABRA1
GABA_GABRB2
GABA_GABRA2
Glu_GRIN3A
GABA_GABRG1
CORT_SSTR2
PDYN_OPRK1
GABA_GABRA4
PDYN_OPRD1
CORT_SSTR1
CO_GUCY1A1
GJB6_GJB6
SST_SSTR1
NPY_NPY1R
Glu_GRM2
Glu_GRM1
Glu_GRIK2
SST_SSTR2
NRXN3_NLGN4X
Glu_GRIA4
Glu_GRIN1
NRXN1_NLGN4X
CO_GUCY1B1
Glu_GRIA1
Glu_GRM5
CO_GUCY1A2
Glu_GRIK4
GJA1_GJA1
Glu_GRIN2A
NRXN3_NLGN2
Glu_GRIA3
NPY_NPY2R
NRXN3_NLGN3
Glu_GRM3
NRXN2_NLGN4X
NRXN1_NLGN2
NRXN1_NLGN3
Glu_GRIN2B
Glu_GRIK5
Glu_GRIA2
NRXN2_NLGN3
NRXN2_NLGN2
NRXN3_NLGN1
NRXN1_NLGN1
Glu_GRM7
NRXN2_NLGN1
0.00
0.25
0.50
0.75
1.00
Relative information flow
Adult
Not_adult

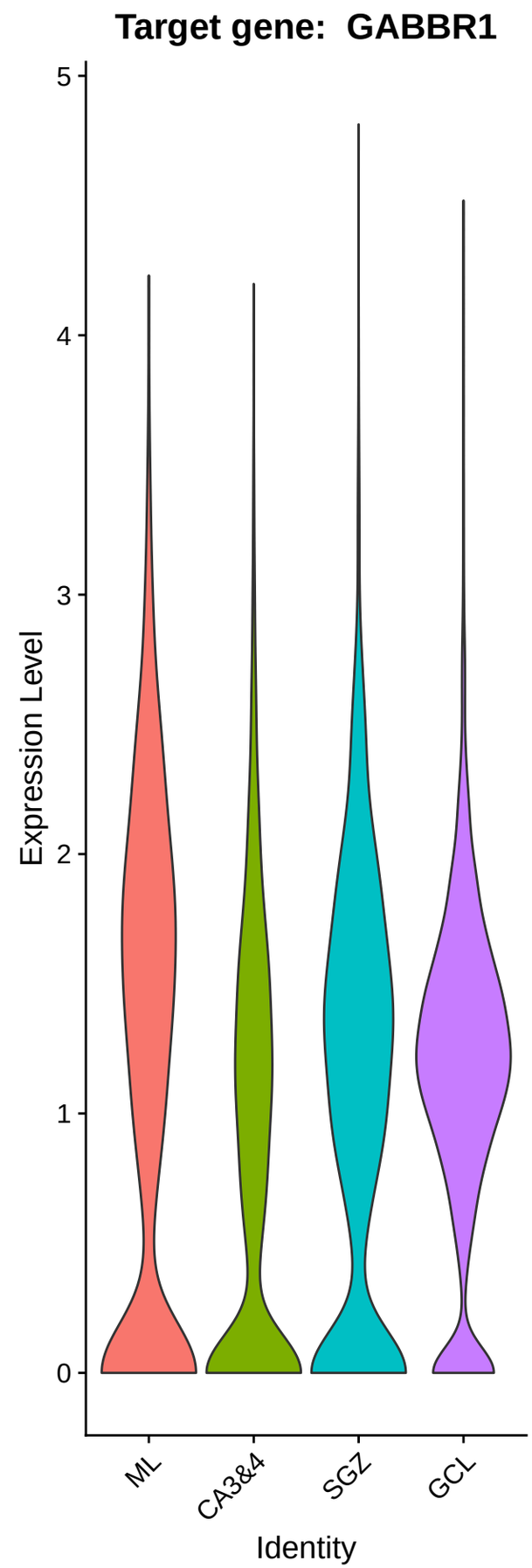

GABA_GABBR1
GABA_GABRA5
GABA_GABRB3
GABA_GABBR2
GABA_GABRG2
GABA_GABRA1
GABA_GABRB2
GABA_GABRA2
Glu_GRIN3A
GABA_GABRG1
CORT_SSTR2
PDYN_OPRK1
GABA_GABRA4
PDYN_OPRD1
CORT_SSTR1
CO_GUCY1A1
GJB6_GJB6
SST_SSTR1
NPY_NPY1R
Glu_GRM2
Glu_GRM1
Glu_GRIK2
SST_SSTR2
NRXN3_NLGN4X
Glu_GRIA4
Glu_GRIN1
NRXN1_NLGN4X
CO_GUCY1B1
Glu_GRIA1
Glu_GRM5
CO_GUCY1A2
Glu_GRIK4
GJA1_GJA1
Glu_GRIN2A
NRXN3_NLGN2
Glu_GRIA3
NPY_NPY2R
NRXN3_NLGN3
Glu_GRM3
NRXN2_NLGN4X
NRXN1_NLGN2
NRXN1_NLGN3
Glu_GRIN2B
Glu_GRIK5
Glu_GRIA2
NRXN2_NLGN3
NRXN2_NLGN2
NRXN3_NLGN1
NRXN1_NLGN1
Glu_GRM7
NRXN2_NLGN1
0.00
0.05
0.10
0.15
0.20
Information flow
Adult
Not_adult

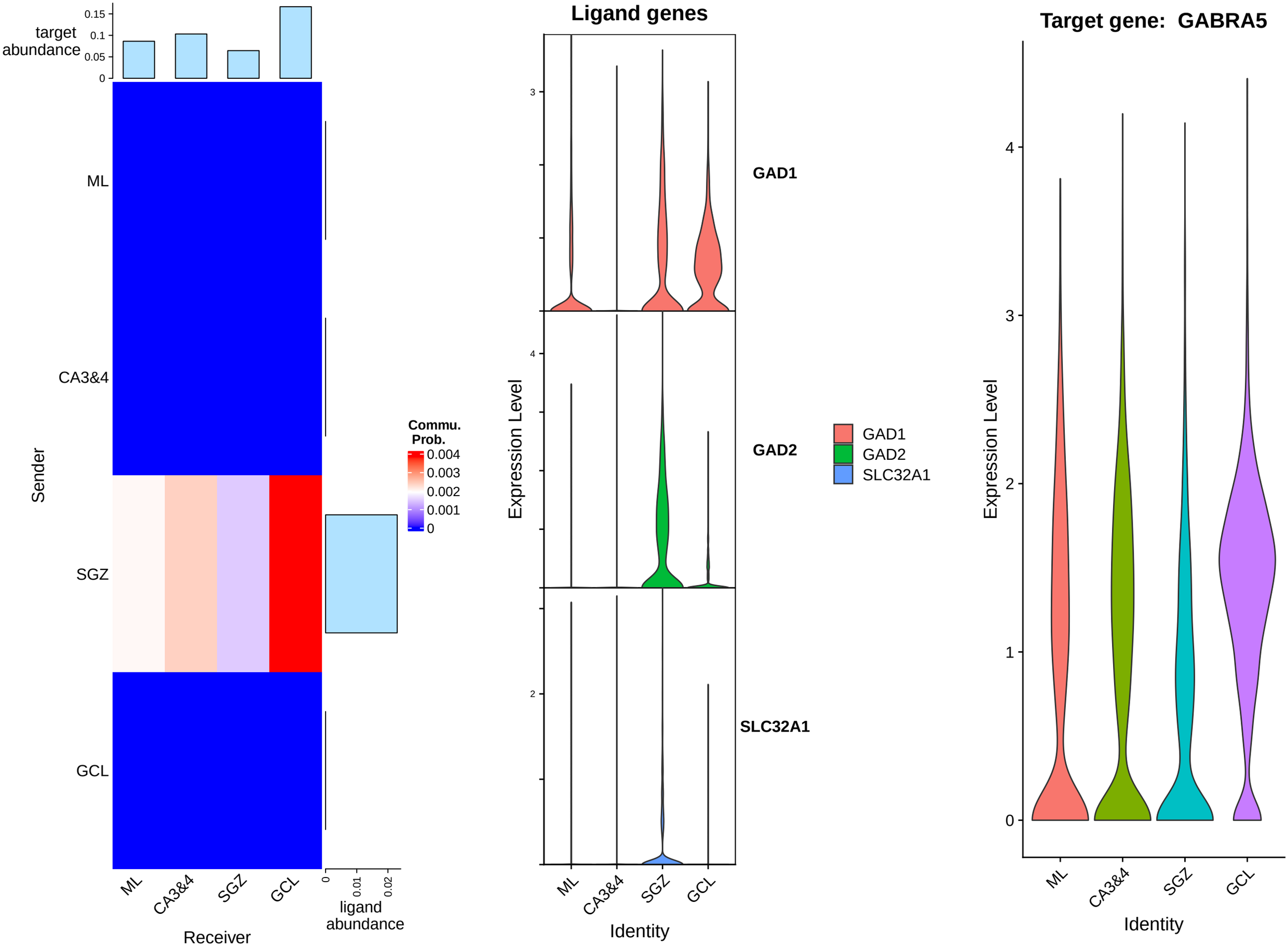

Glu_GRIN3A
GABA_GABRG2
GABA_GABRB3
GABA_GABRB2
GABA_GABRA5
GABA_GABRA2
GABA_GABRA1
GABA_GABBR2
GABA_GABBR1
PDYN_OPRK1
PDYN_OPRD1
GABA_GABRG1
CO_GUCY1A1
CORT_SSTR2
CORT_SSTR1
GABA_GABRA4
GJB6_GJB6
Glu_GRIN1
Glu_GRIK5
Glu_GRIA1
NRXN2_NLGN3
Glu_GRM3
NRXN3_NLGN2
Glu_GRIN2B
NRXN3_NLGN4X
NRXN2_NLGN2
Glu_GRM5
CO_GUCY1B1
NRXN3_NLGN3
Glu_GRIA4
GJA1_GJA1
NRXN1_NLGN4X
Glu_GRIN2A
Glu_GRIA3
SST_SSTR2
NRXN2_NLGN4X
Glu_GRM2
Glu_GRM1
Glu_GRIK4
Glu_GRIK2
SST_SSTR1
NRXN1_NLGN3
NRXN1_NLGN2
CO_GUCY1A2
NPY_NPY2R
NPY_NPY1R
NRXN2_NLGN1
NRXN1_NLGN1
NRXN3_NLGN1
Glu_GRIA2
Glu_GRM7
0.00
0.25
0.50
0.75
1.00
Relative number of interactions
Adult
Not_adult

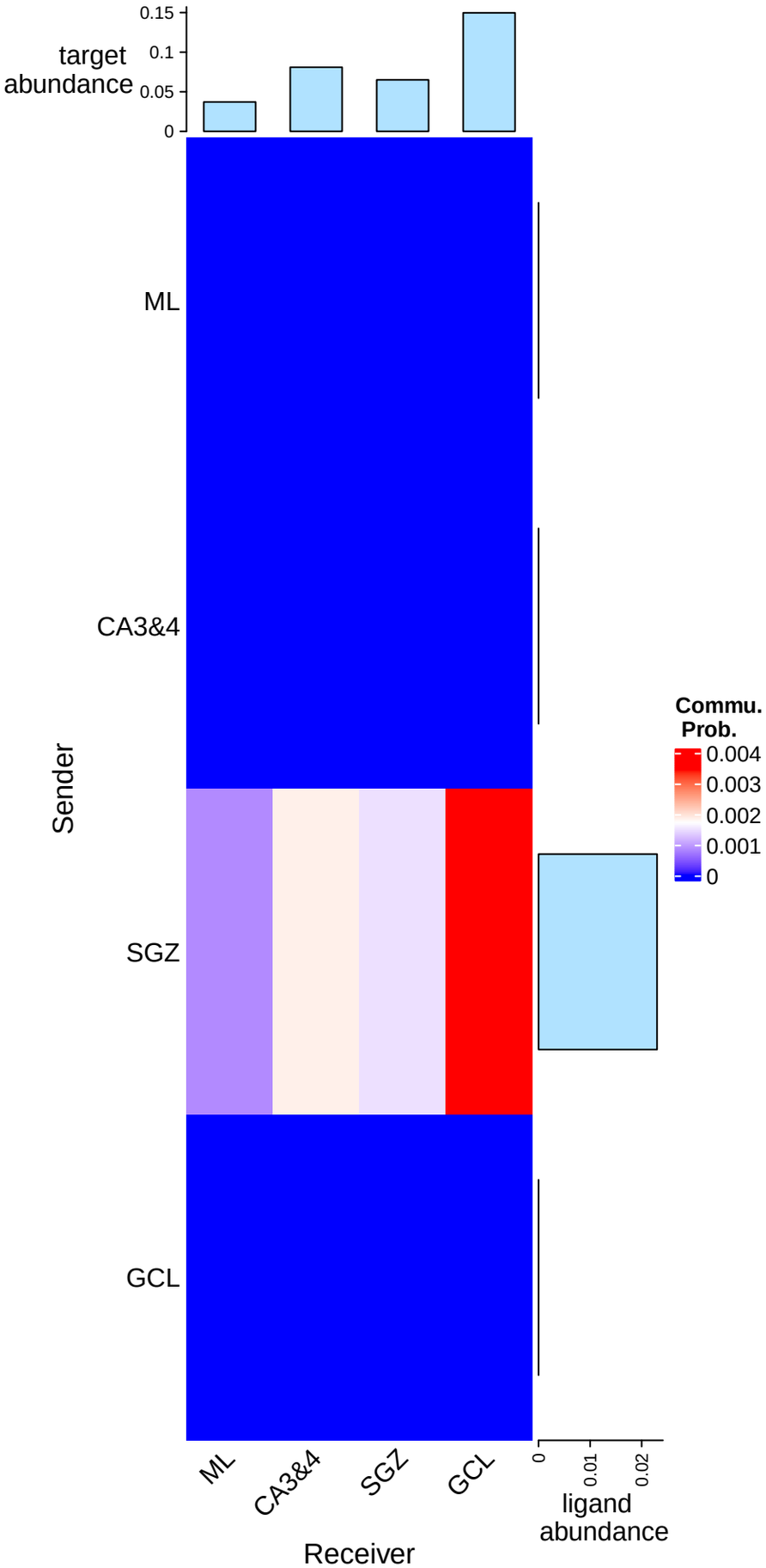

Glu_GRIN3A
GABA_GABRG2
GABA_GABRB3
GABA_GABRB2
GABA_GABRA5
GABA_GABRA2
GABA_GABRA1
GABA_GABBR2
GABA_GABBR1
PDYN_OPRK1
PDYN_OPRD1
GABA_GABRG1
CO_GUCY1A1
CORT_SSTR2
CORT_SSTR1
GABA_GABRA4
GJB6_GJB6
Glu_GRIN1
Glu_GRIK5
Glu_GRIA1
NRXN2_NLGN3
Glu_GRM3
NRXN3_NLGN2
Glu_GRIN2B
NRXN3_NLGN4X
NRXN2_NLGN2
Glu_GRM5
CO_GUCY1B1
NRXN3_NLGN3
Glu_GRIA4
GJA1_GJA1
NRXN1_NLGN4X
Glu_GRIN2A
Glu_GRIA3
SST_SSTR2
NRXN2_NLGN4X
Glu_GRM2
Glu_GRM1
Glu_GRIK4
Glu_GRIK2
SST_SSTR1
NRXN1_NLGN3
NRXN1_NLGN2
CO_GUCY1A2
NPY_NPY2R
NPY_NPY1R
NRXN2_NLGN1
NRXN1_NLGN1
NRXN3_NLGN1
Glu_GRIA2
Glu_GRM7
0
3
6
9
Number of links
Adult
Not_adult

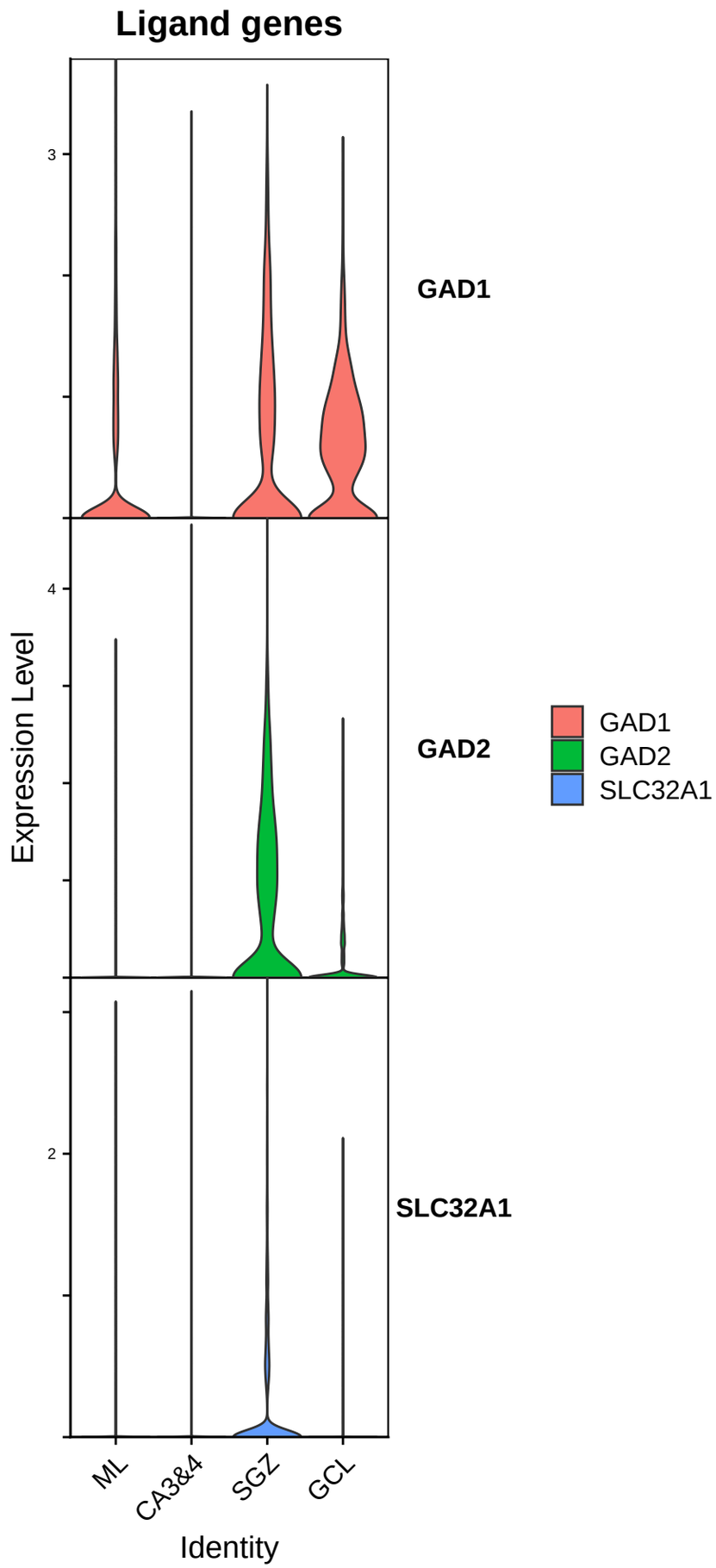

target abundance
0.1
0.05
0
ML
CA3&4
SGZ
GCL
Sender
Commu. Prob.
0.004
0.003
0.002
0.001
0
ML
CA3&4
SGZ
GCL
Receiver
0
0.01
0.02
ligand abundance

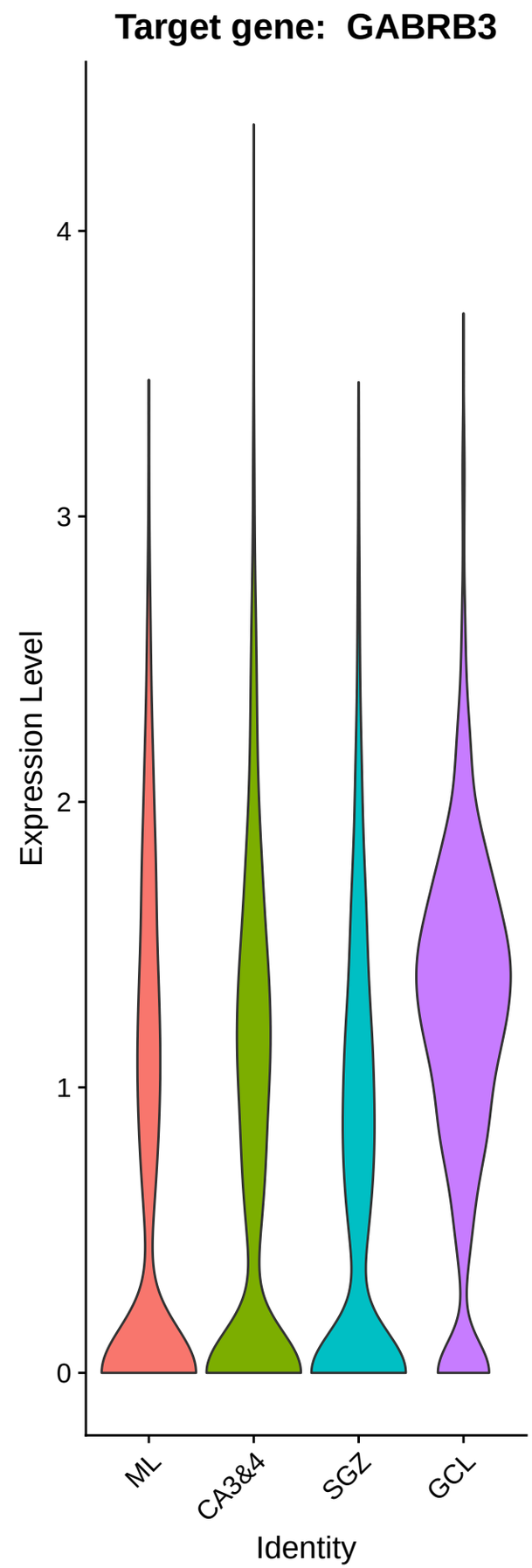

Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
3
4
2
ML
CA3&4
SGZ
GCL
Identity
GAD1
GAD2
SLC32A1

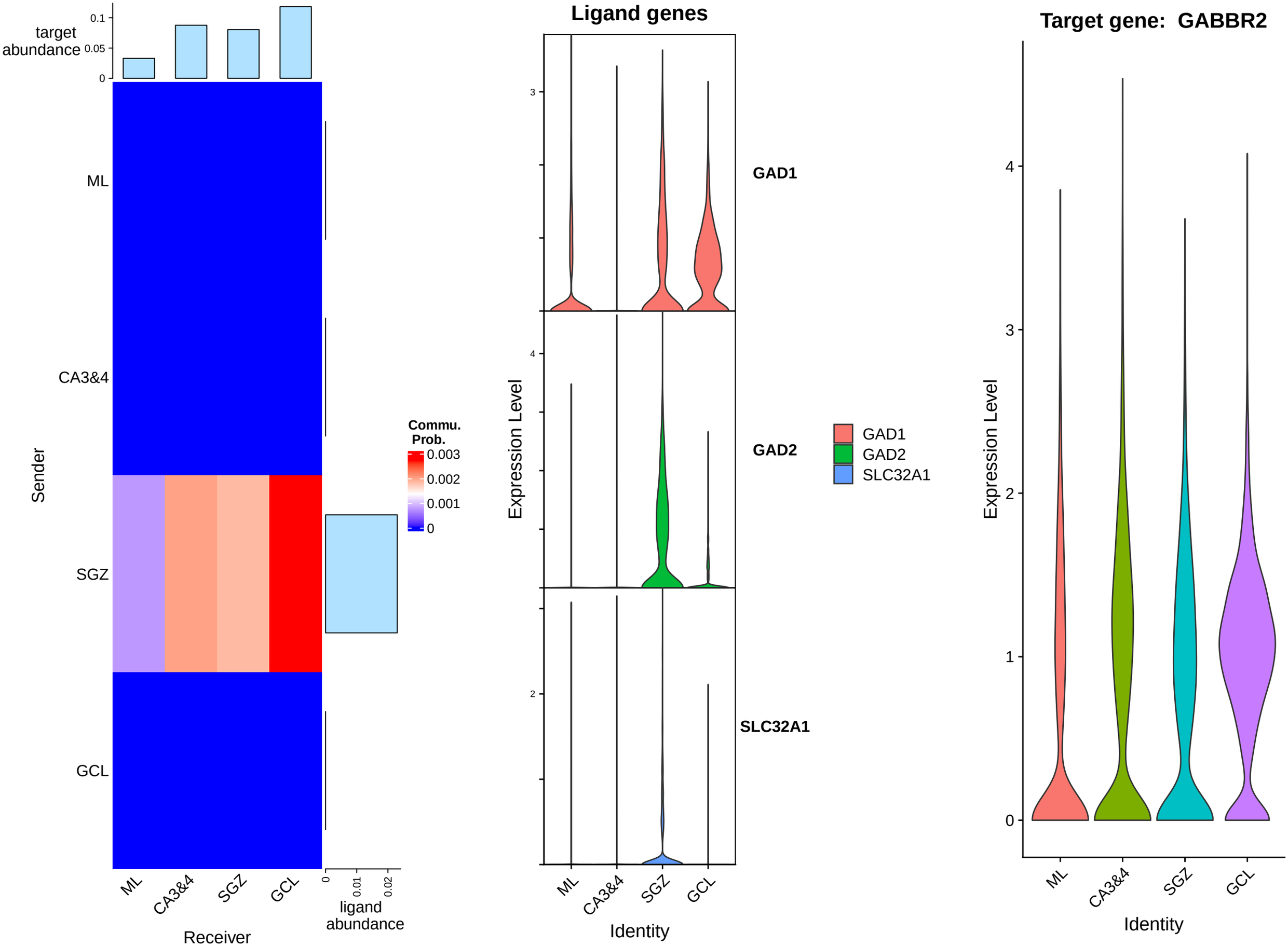

Target gene: GABBR1
Expression Level
5
4
3
2
1
0
ML
CA3&4
SGZ
GCL
Identity

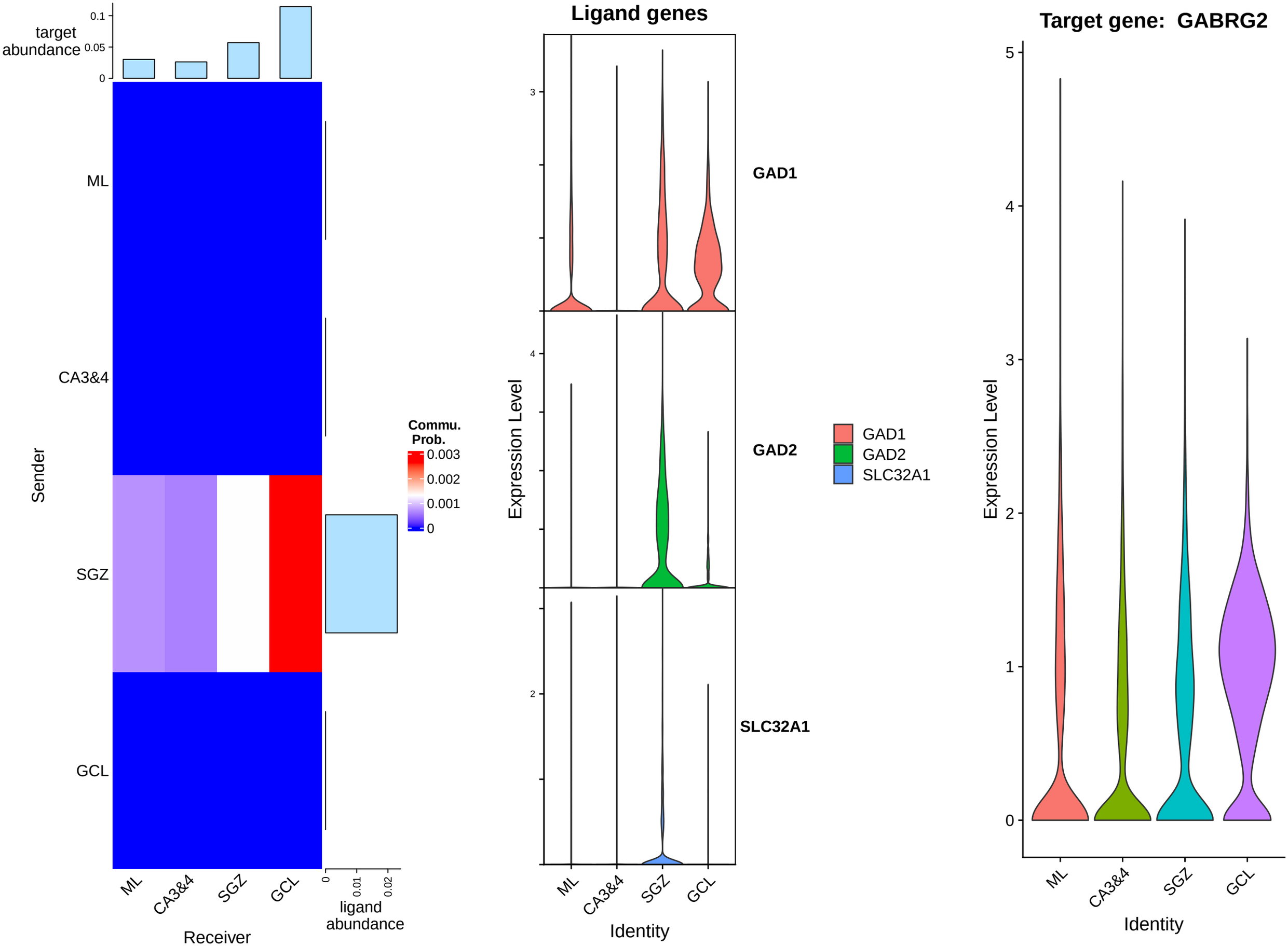

target abundance
0.15
0.1
0.05
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
Commu. Prob.
0.004
0.003
0.002
0.001
0
ligand abundance
0
0.01
0.02
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRA5

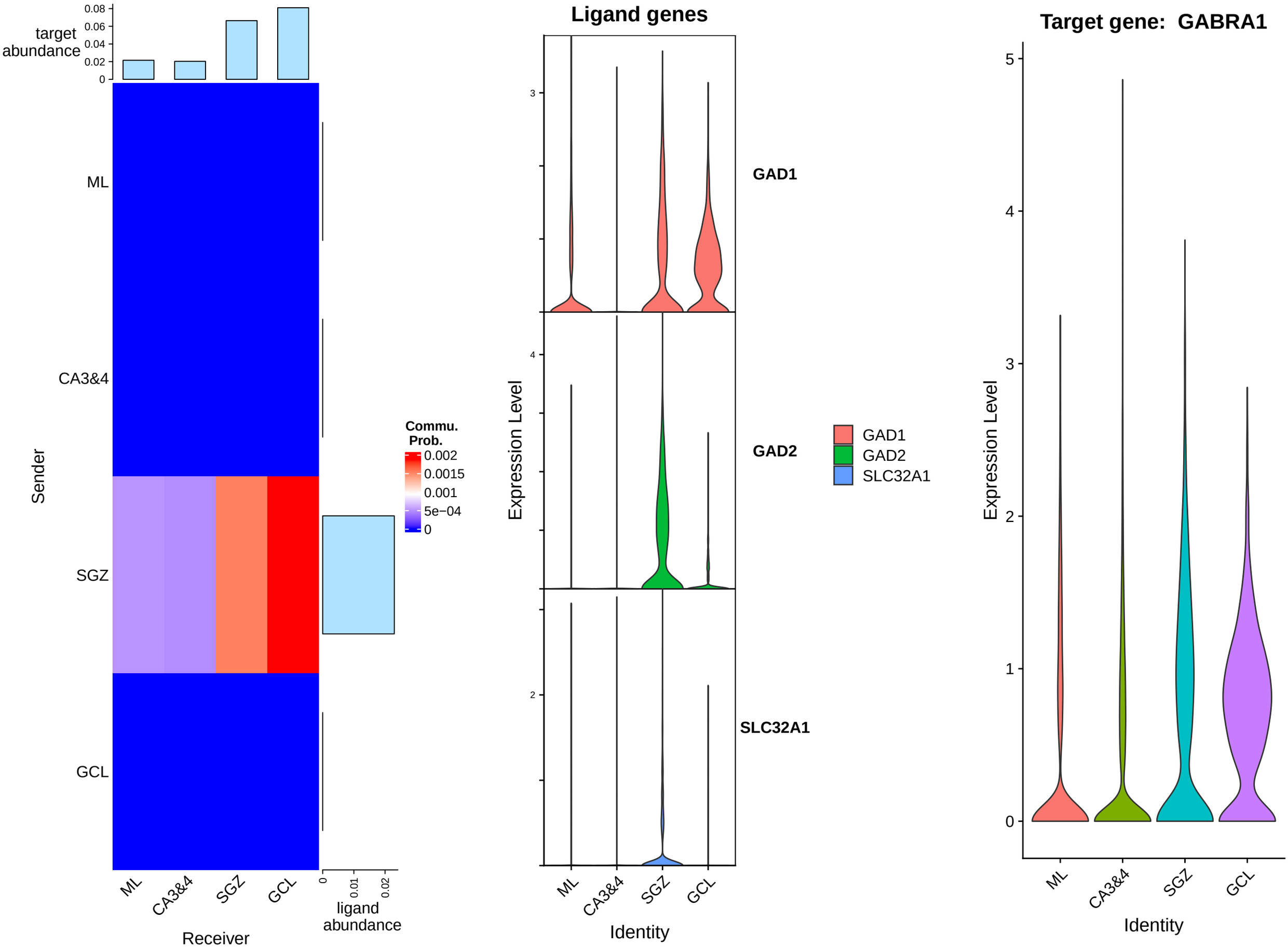

target abundance
0.15
0.1
0.05
0
ML
CA3&4
SGZ
GCL
Sender
Commu. Prob.
0.004
0.003
0.002
0.001
0
ligand abundance
0
0.01
0.02
ML
CA3&4
SGZ
GCL
Receiver

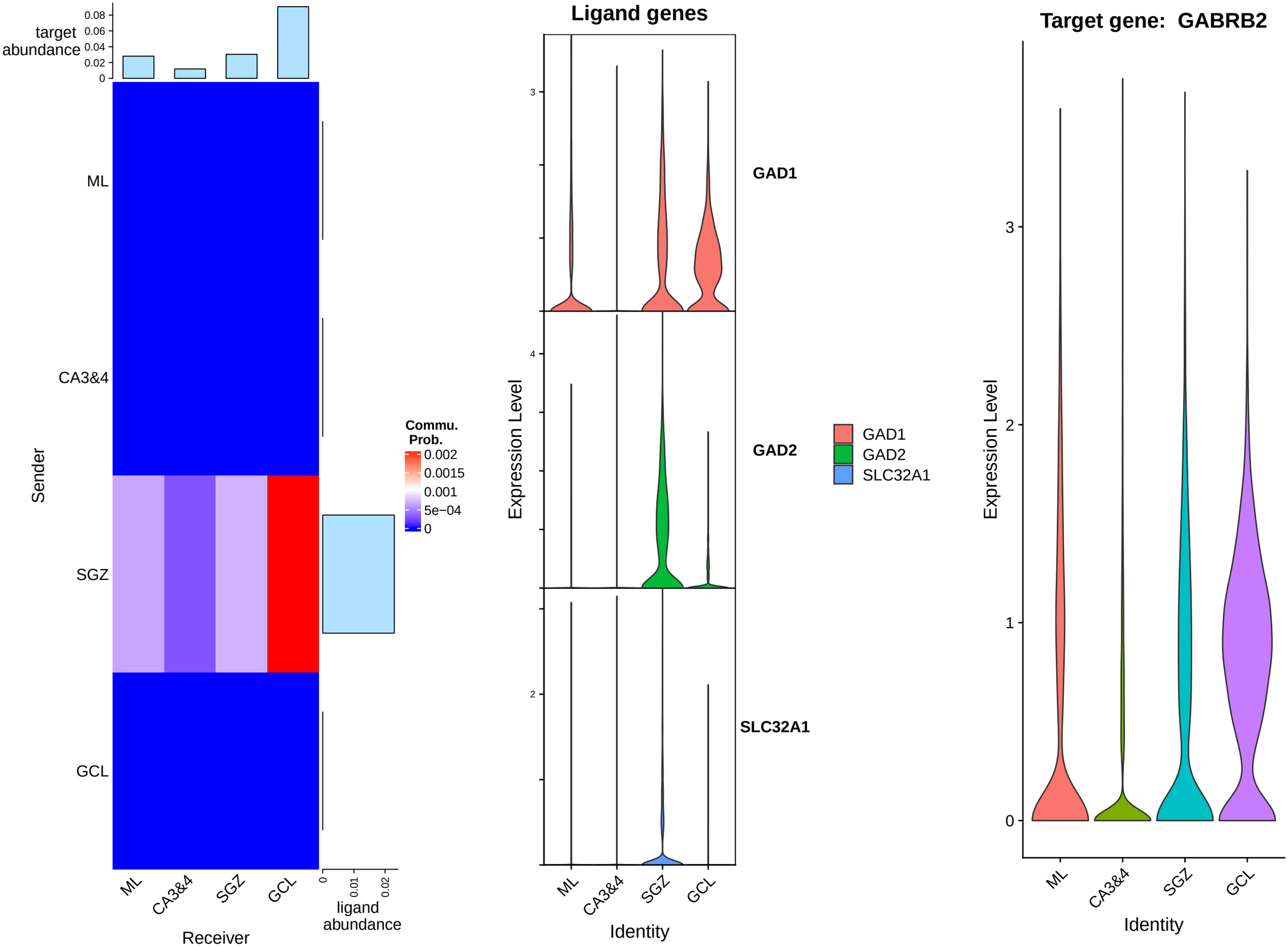

Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
3
4
2
ML
CA3&4
SGZ
GCL
Identity
GAD1
GAD2
SLC32A1

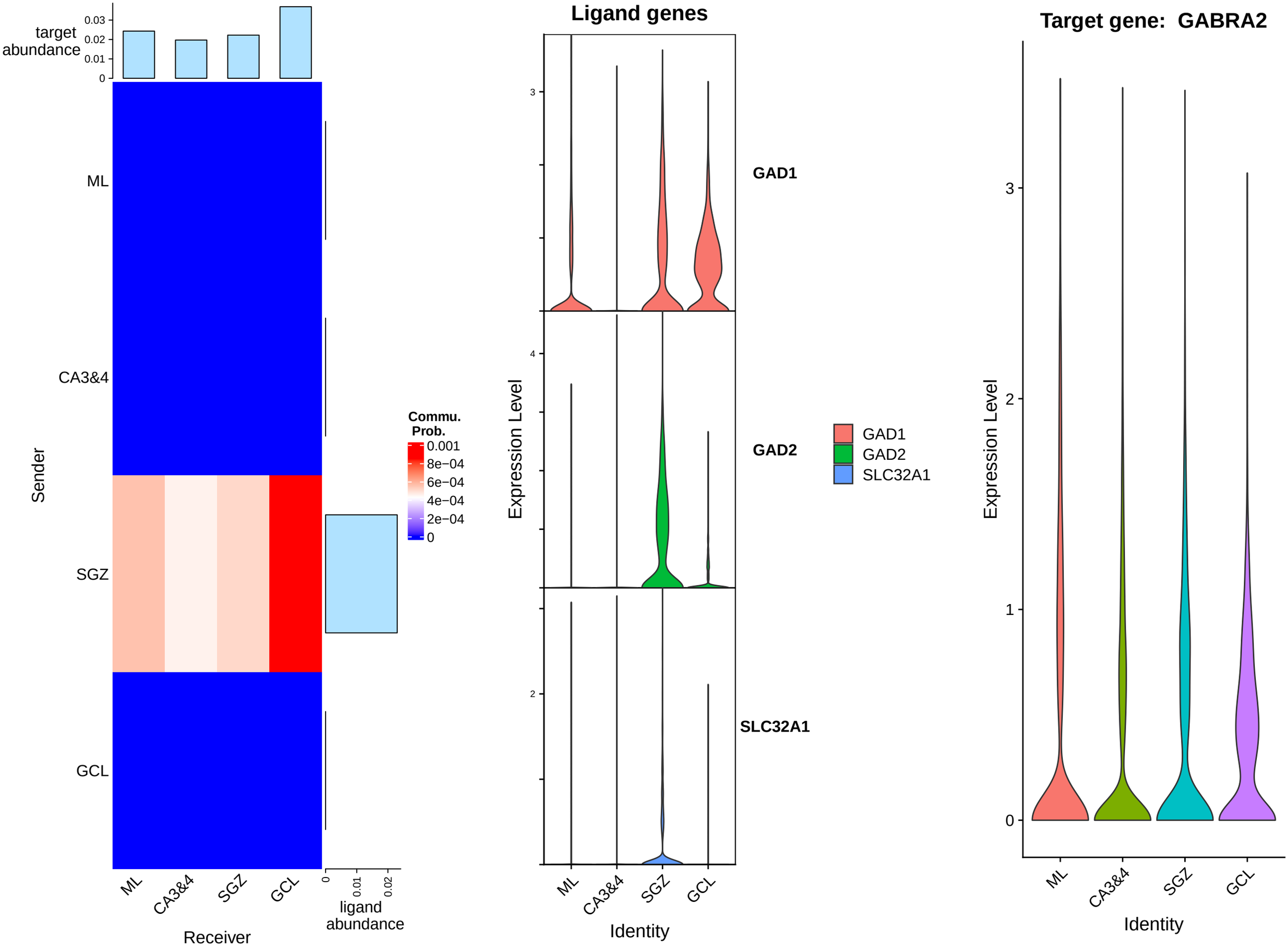

Target gene: GABRB3
Expression Level
4
3
2
1
0
ML
CA3&4
SGZ
GCL
Identity

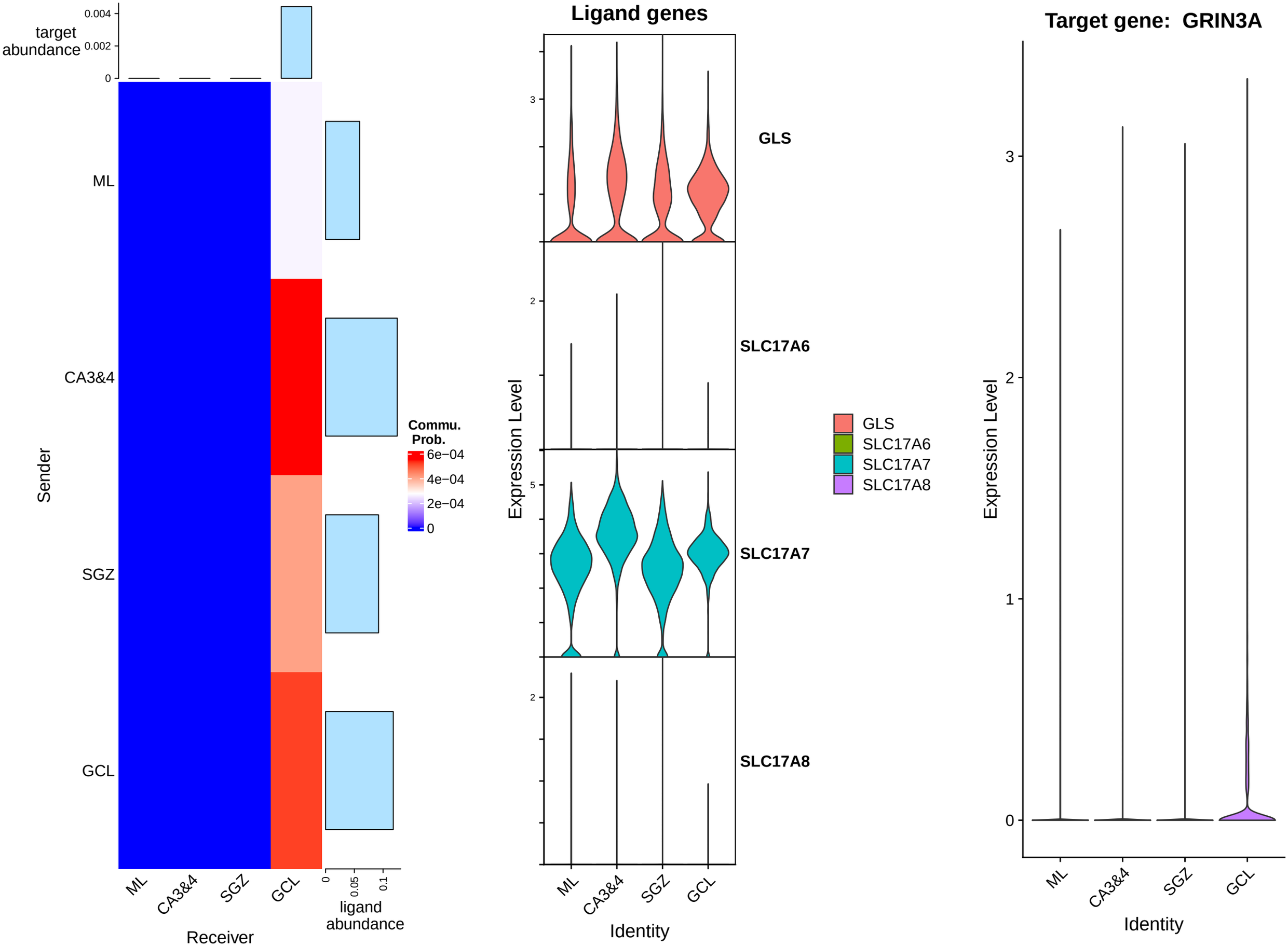

target abundance
0.1
0.05
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
Commu. Prob.
0.003
0.002
0.001
0
0
0.01
0.02
ligand abundance
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABBR2
Expression Level
Identity

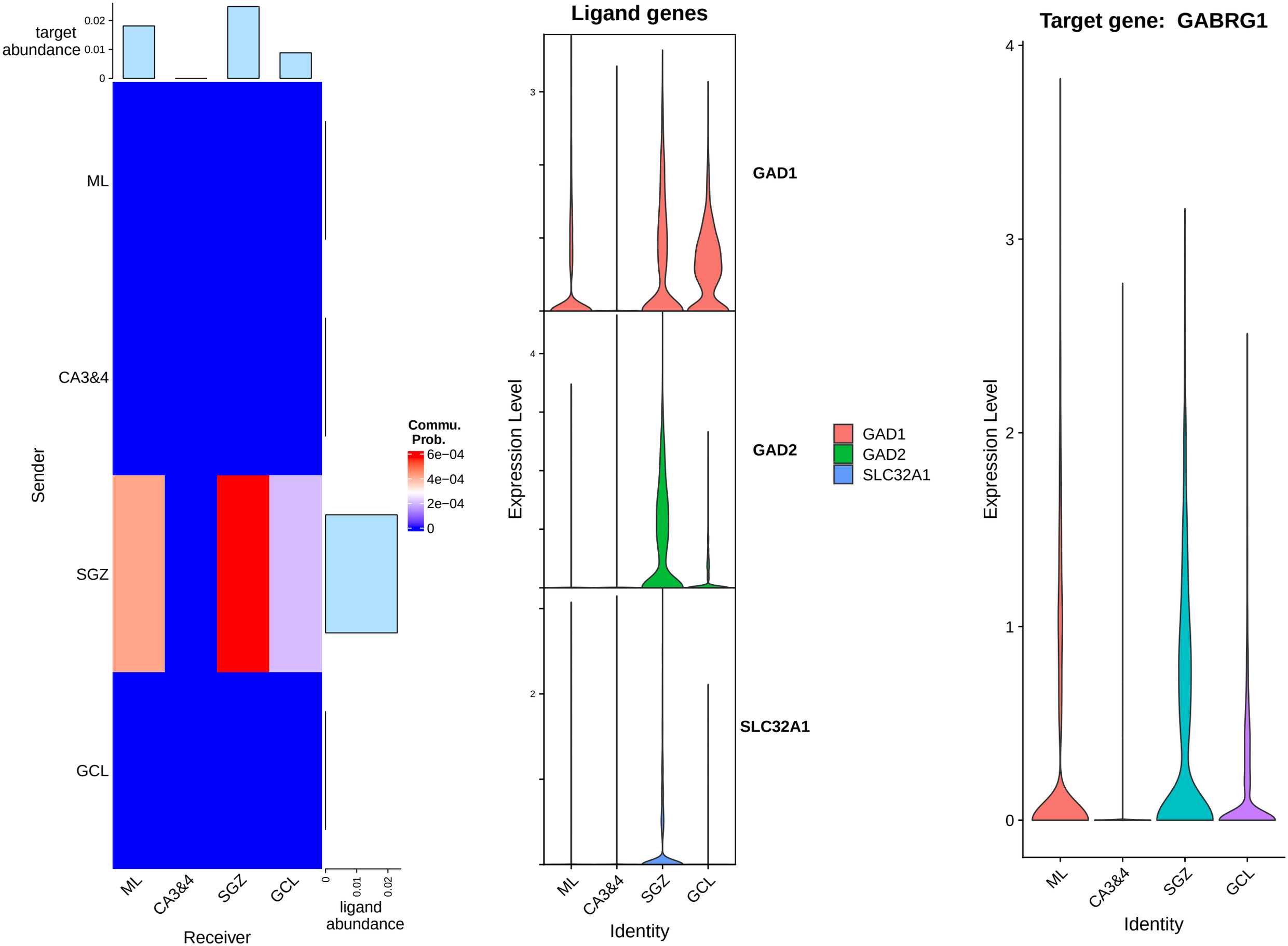

target abundance
0.1
0.05
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
Commu. Prob.
0.003
0.002
0.001
0
0
0.01
0.02
ligand abundance
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRG2
Expression Level
Identity

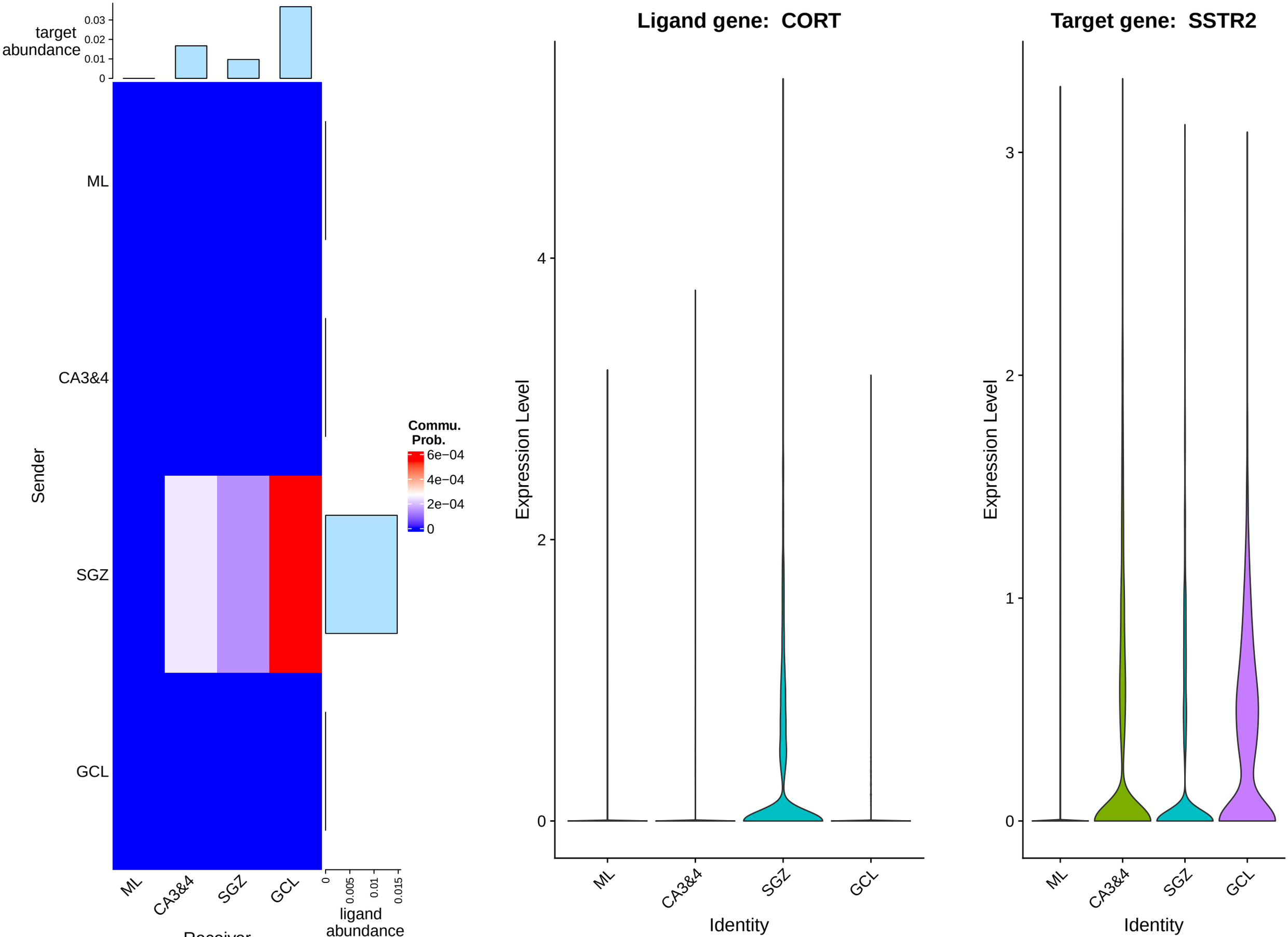

target abundance
0.08
0.06
0.04
0.02
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ML
CA3&4
SGZ
GCL
0
0.01
0.02
ligand abundance
Commu. Prob.
0.002
0.0015
0.001
5e−04
0
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRA1
Expression Level
Identity

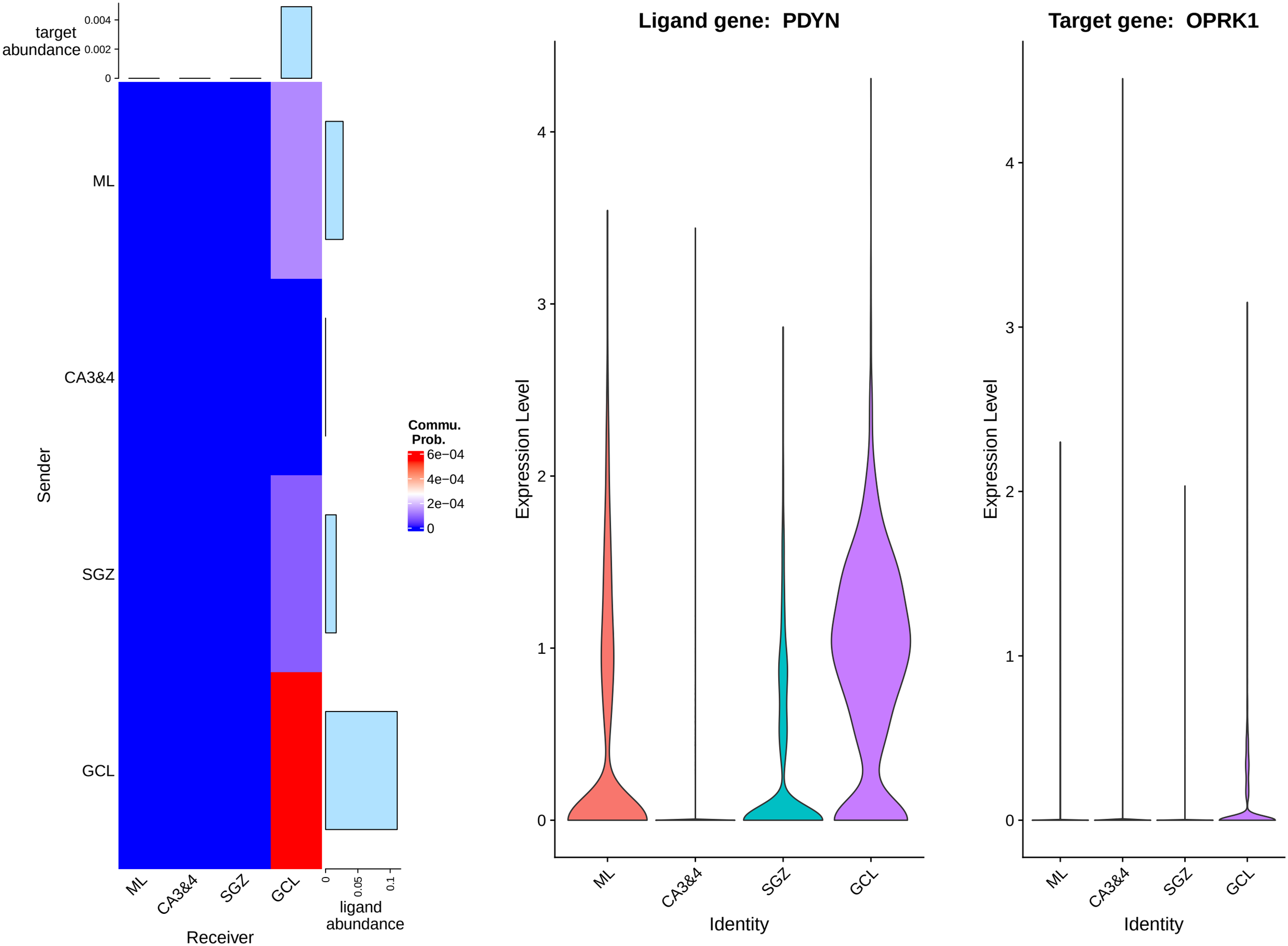

target abundance
0.08
0.06
0.04
0.02
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
Commu. Prob.
0.002
0.0015
0.001
5e−04
0
0
0.01
0.02
ligand abundance
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRB2
Expression Level
Identity

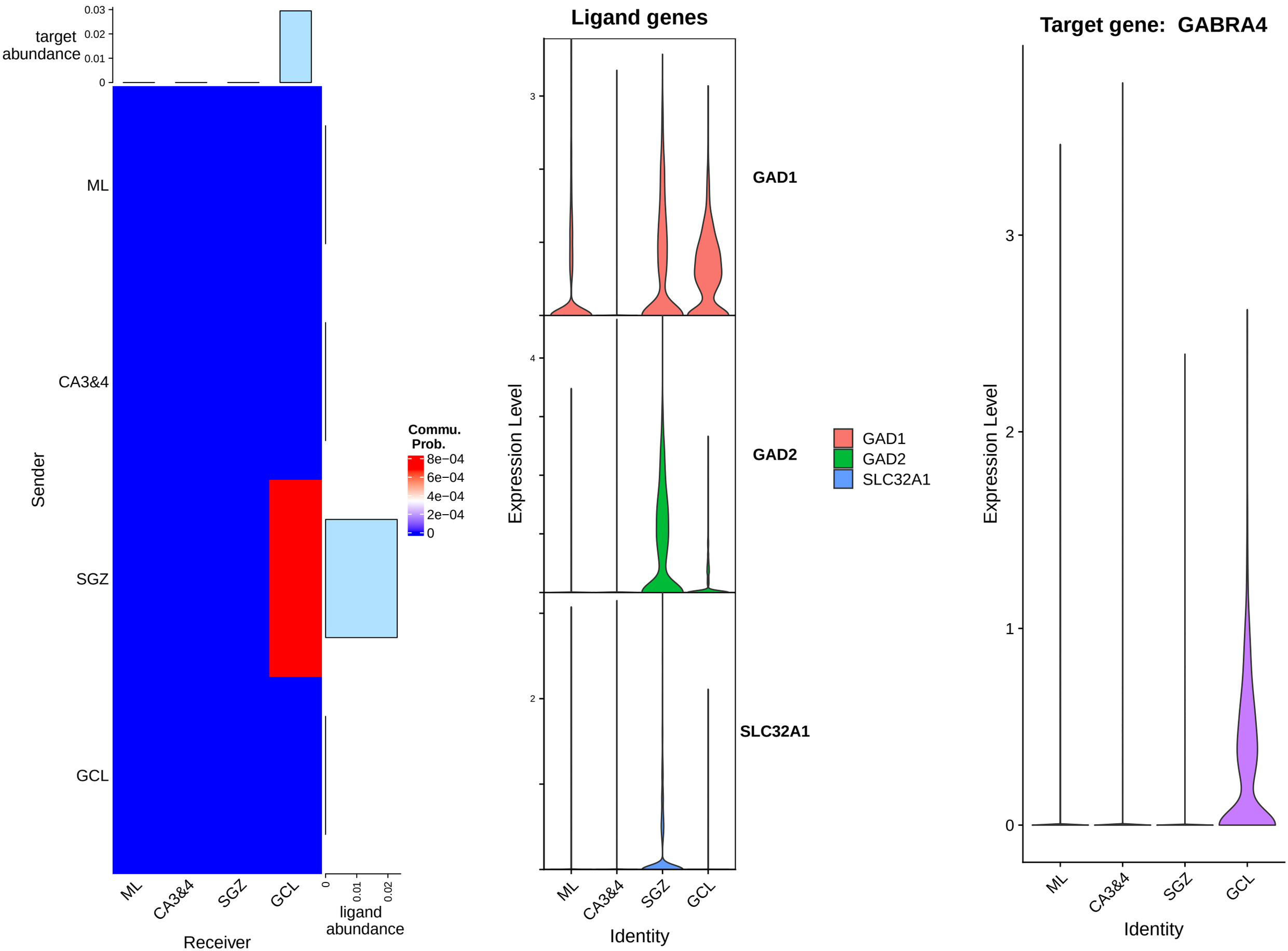

target abundance
0.03
0.02
0.01
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ligand abundance
Commu. Prob.
0.001
8e−04
6e−04
4e−04
2e−04
0
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRA2

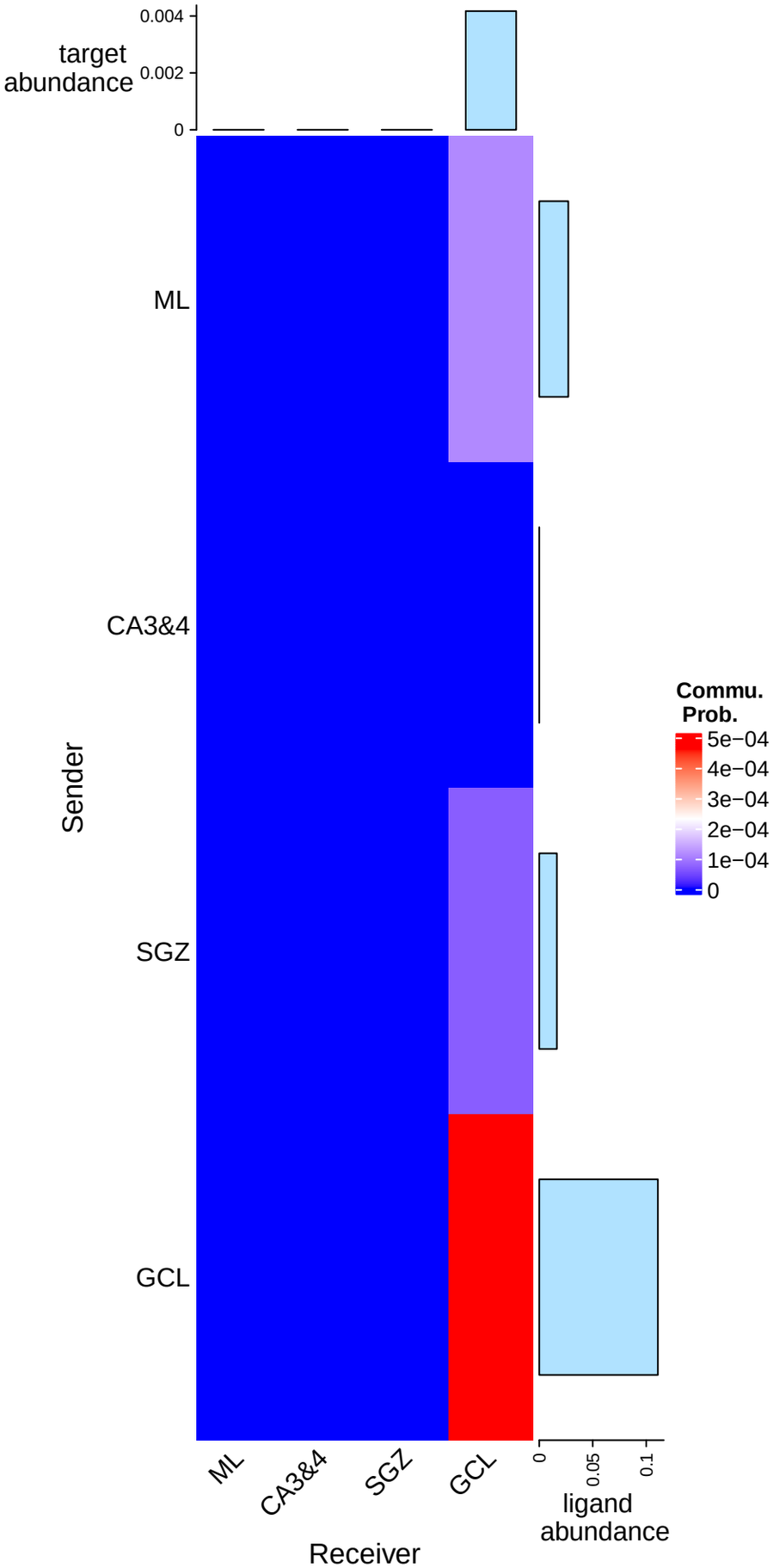

target abundance
0.004
0.002
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
Commu. Prob.
6e−04
4e−04
2e−04
0
ligand abundance
0
0.05
0.1
Ligand genes
GLS
SLC17A6
SLC17A7
SLC17A8
Expression Level
Identity
GLS
SLC17A6
SLC17A7
SLC17A8
Target gene: GRIN3A
Expression Level
Identity

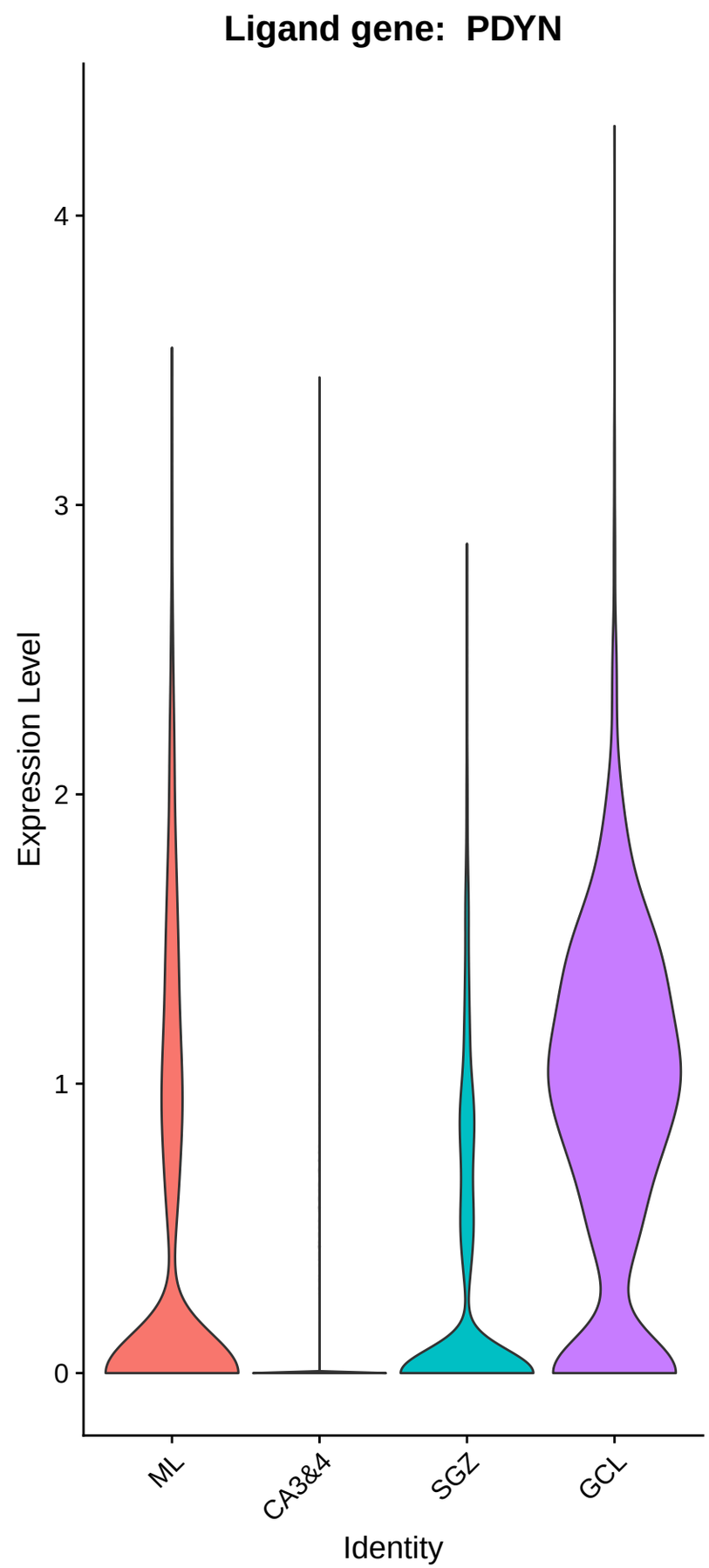

target abundance
0.02
0.01
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ML
CA3&4
SGZ
GCL
0
0.01
0.02
ligand abundance
Commu. Prob.
6e−04
4e−04
2e−04
0
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRG1
Expression Level
Identity

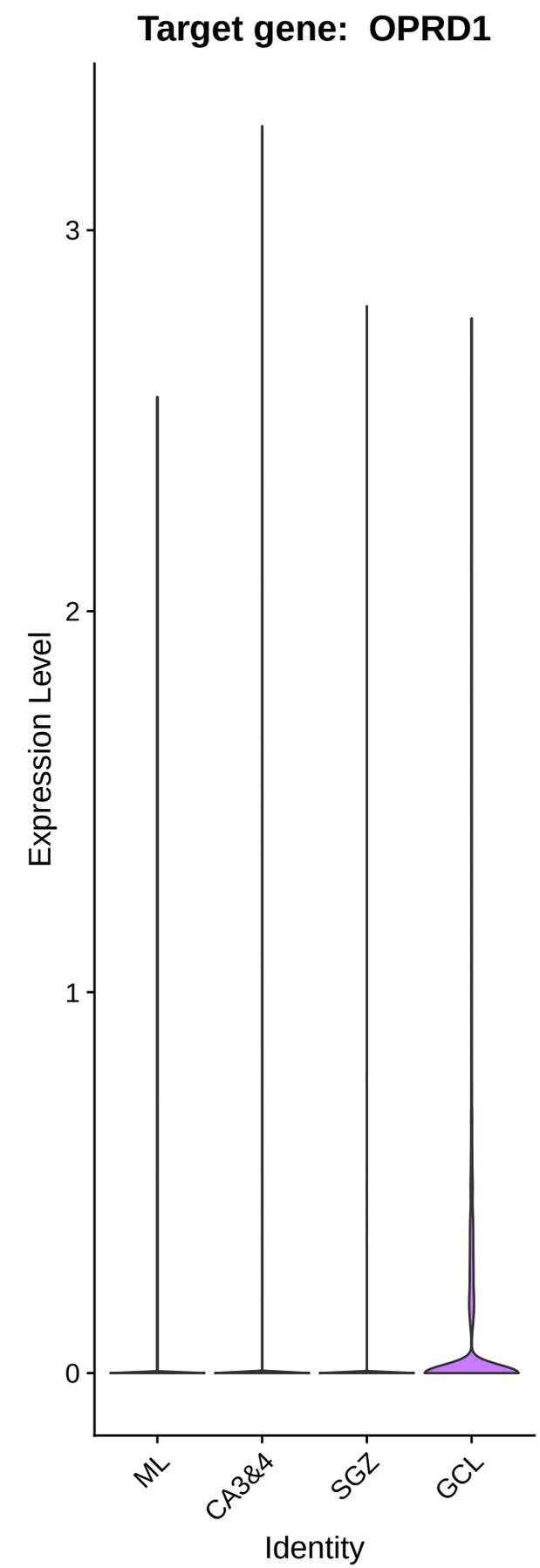

target abundance
0.03
0.02
0.01
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ML
CA3&4
SGZ
GCL
0
0.005
0.01
0.015
ligand abundance
Commu. Prob.
6e−04
4e−04
2e−04
0
Ligand gene: CORT
Expression Level
4
2
0
ML
CA3&4
SGZ
GCL
Identity
Target gene: SSTR2
Expression Level
3
2
1
0
ML
CA3&4
SGZ
GCL
Identity

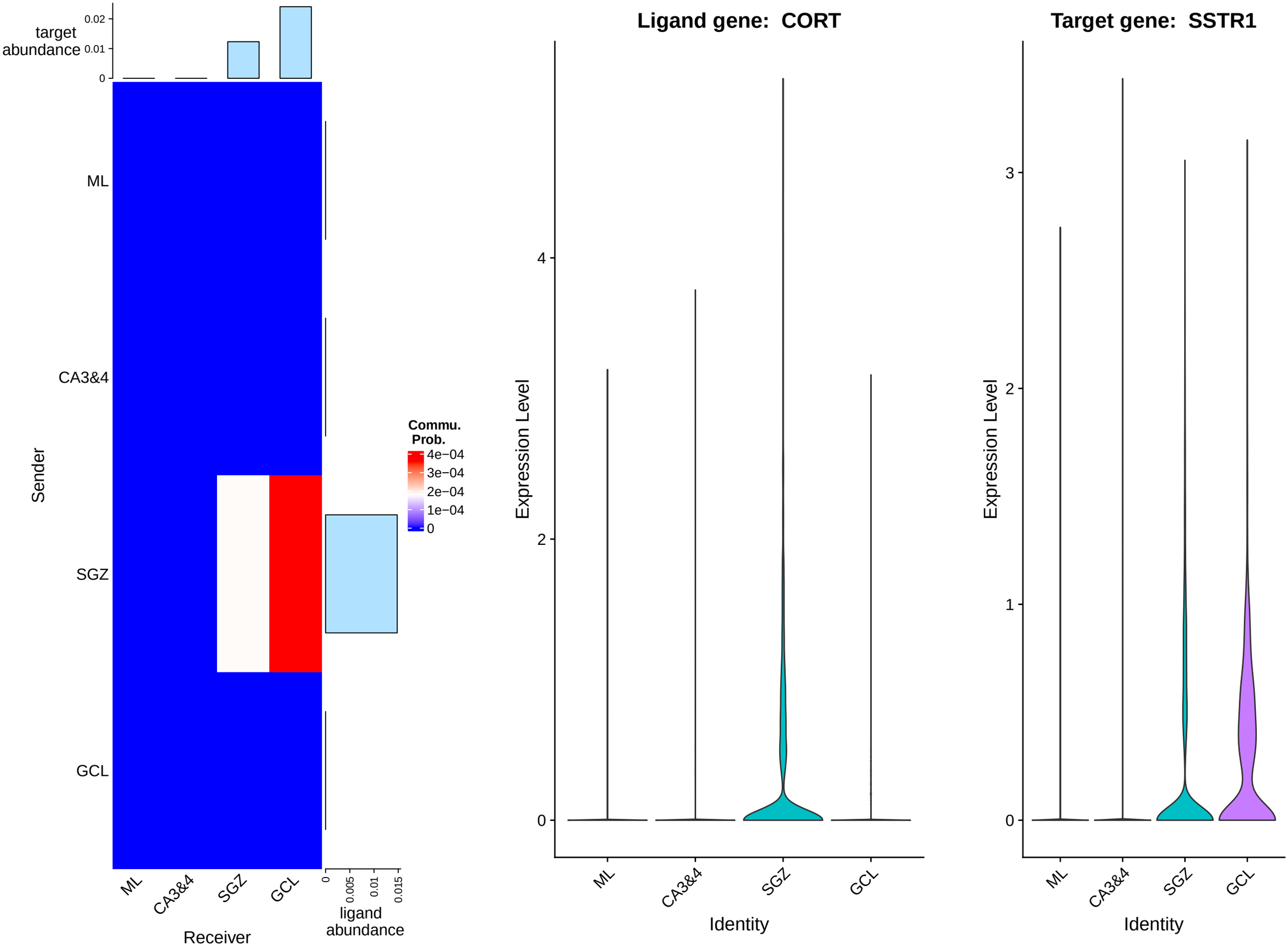

target abundance
0.004
0.002
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ML
CA3&4
SGZ
GCL
0
0.05
0.1
ligand abundance
Commu. Prob.
6e−04
4e−04
2e−04
0
Ligand gene: PDYN
Expression Level
Identity
Target gene: OPRK1
Expression Level
Identity

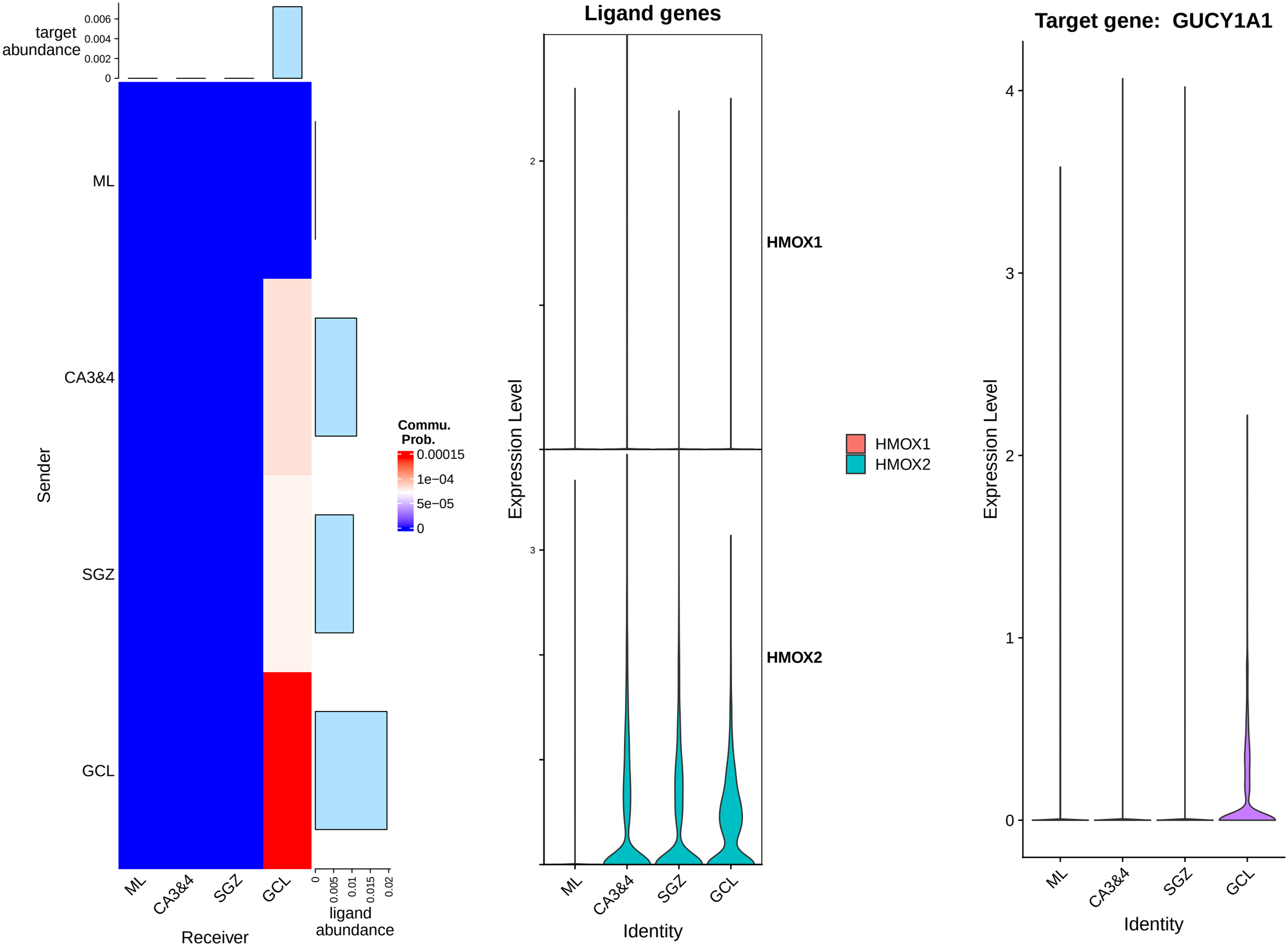

target abundance
0.03
0.02
0.01
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ML
CA3&4
SGZ
GCL
0
0.01
0.02
ligand abundance
Commu. Prob.
8e−04
6e−04
4e−04
2e−04
0
Ligand genes
GAD1
GAD2
SLC32A1
Expression Level
Identity
GAD1
GAD2
SLC32A1
Target gene: GABRA4
Expression Level
Identity

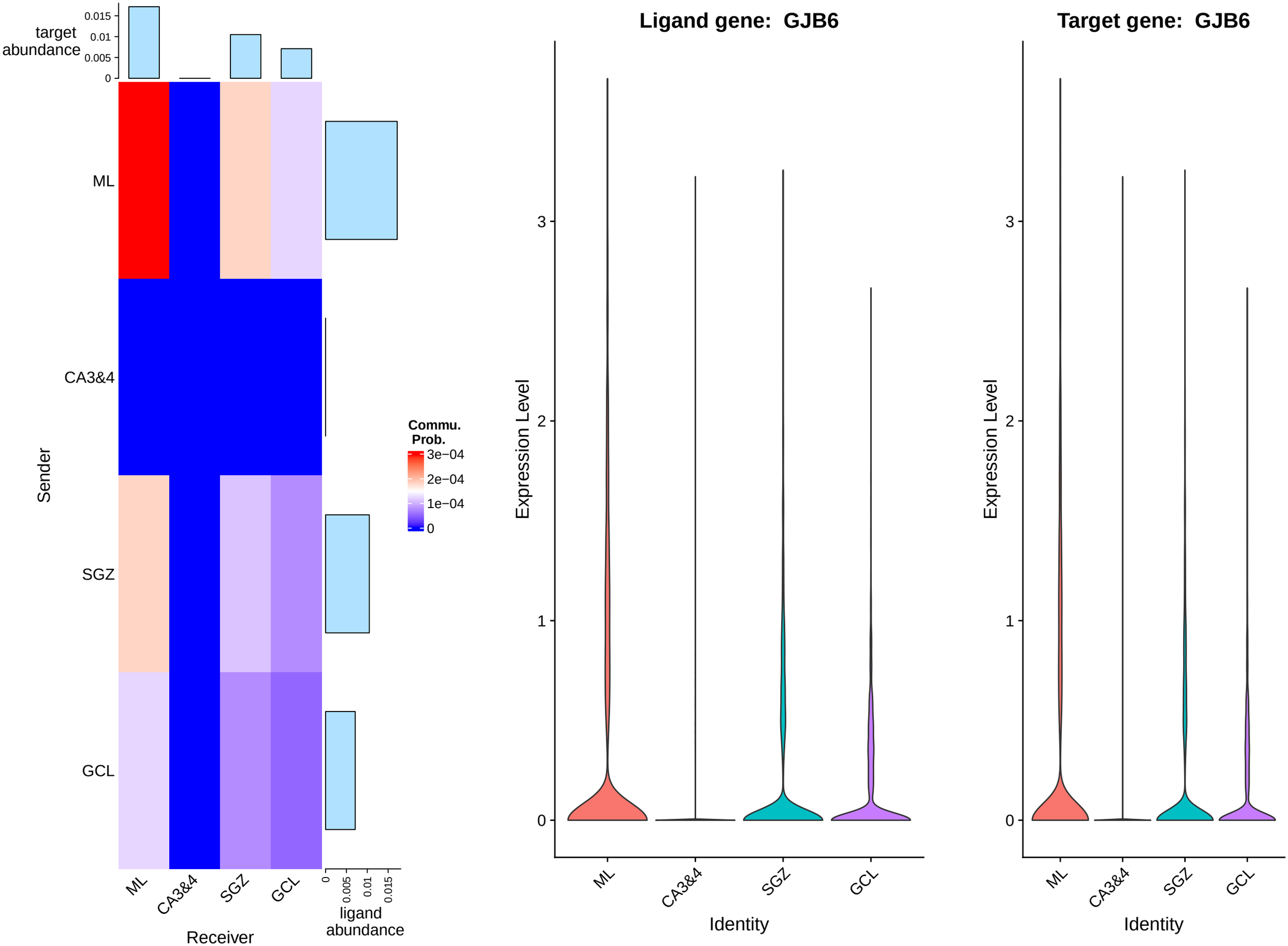

target
abundance
0.004
0.002
0
ML
CA3&4
SGZ
GCL
Sender
Commu.
Prob.
5e−04
4e−04
3e−04
2e−04
1e−04
0
ML
CA3&4
SGZ
GCL
Receiver
0
0.05
0.1
ligand
abundance

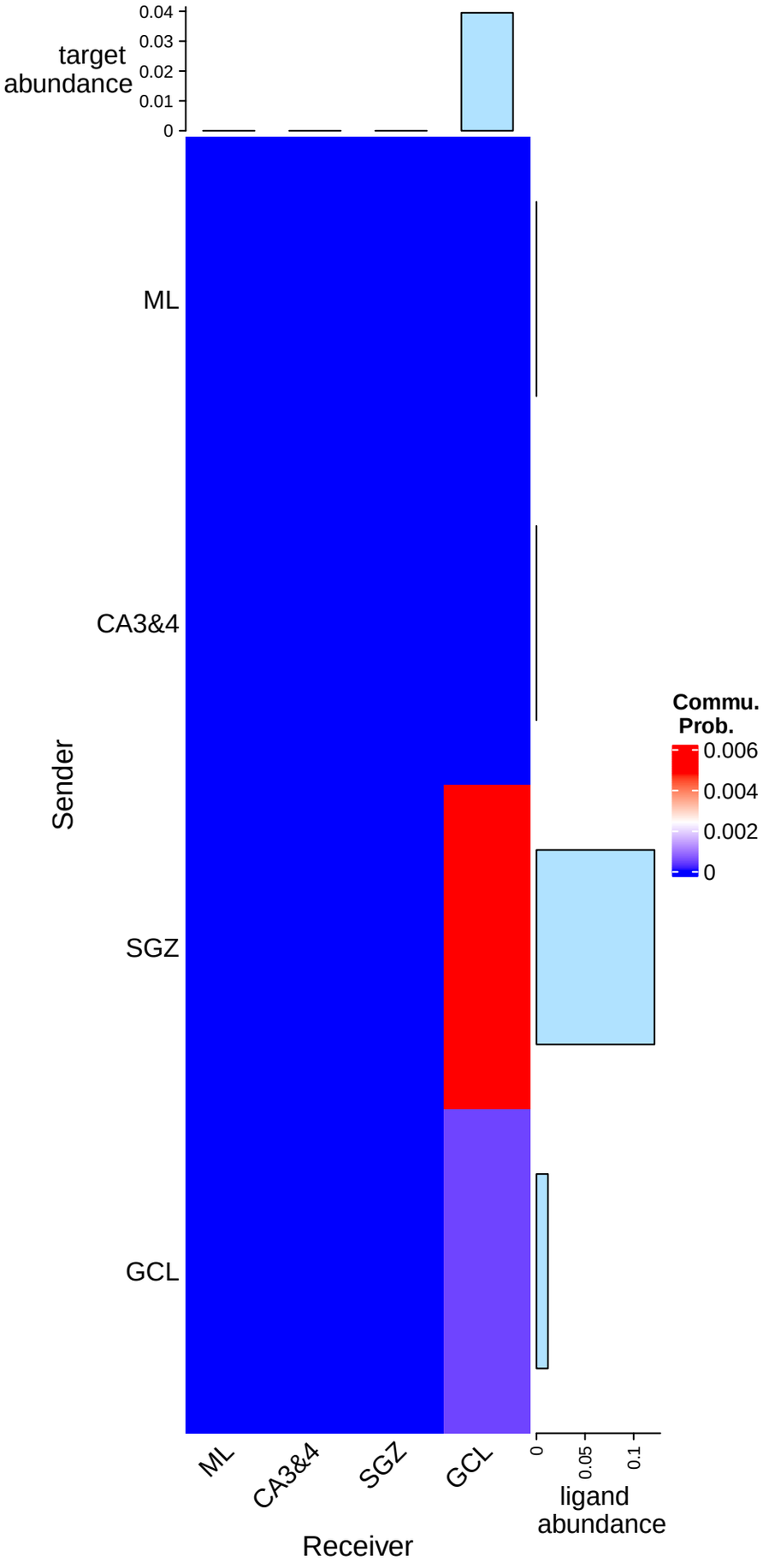

Ligand gene: PDYN
Expression Level
0
1
2
3
4
ML
CA3&4
SGZ
GCL
Identity

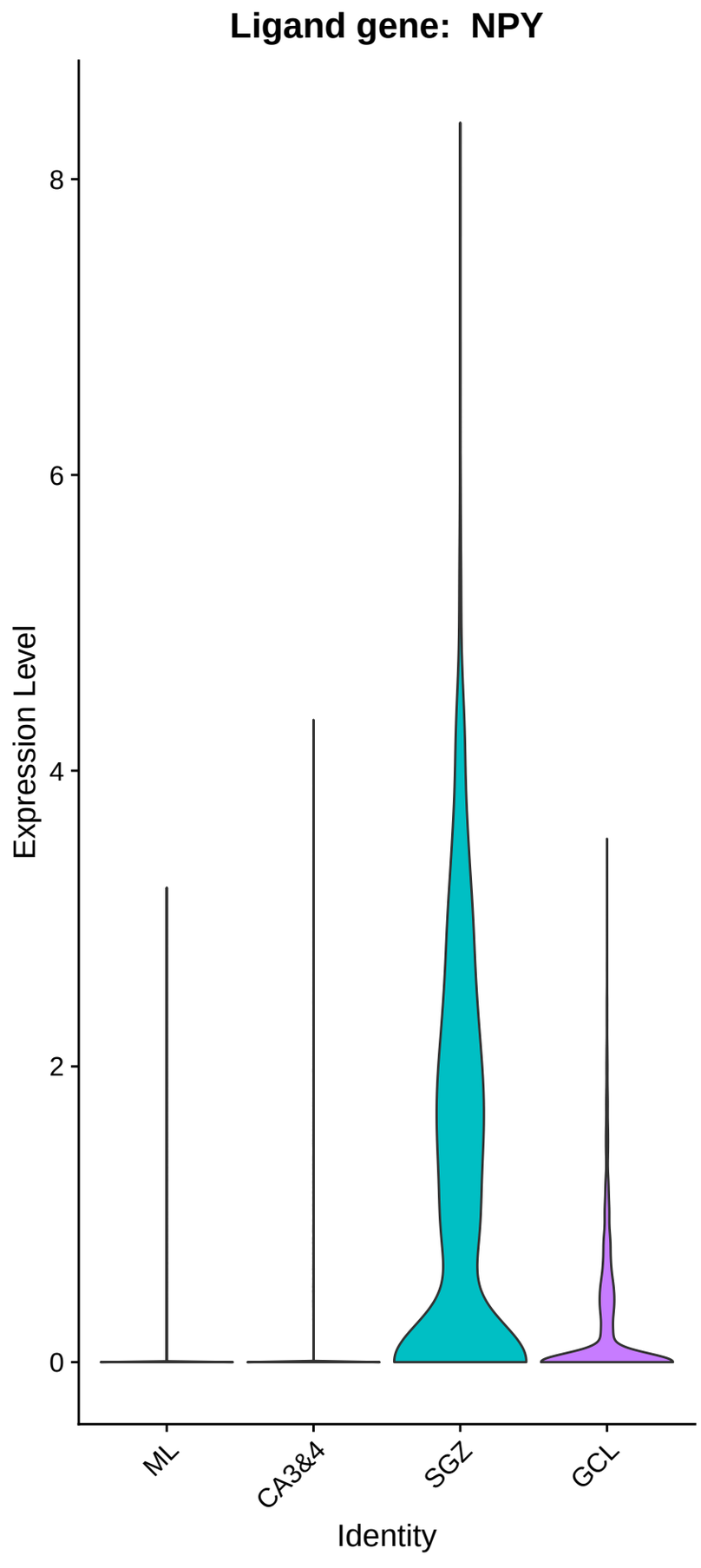

Target gene: OPRD1
Expression Level
0
1
2
3
ML
CA3&4
SGZ
GCL
Identity

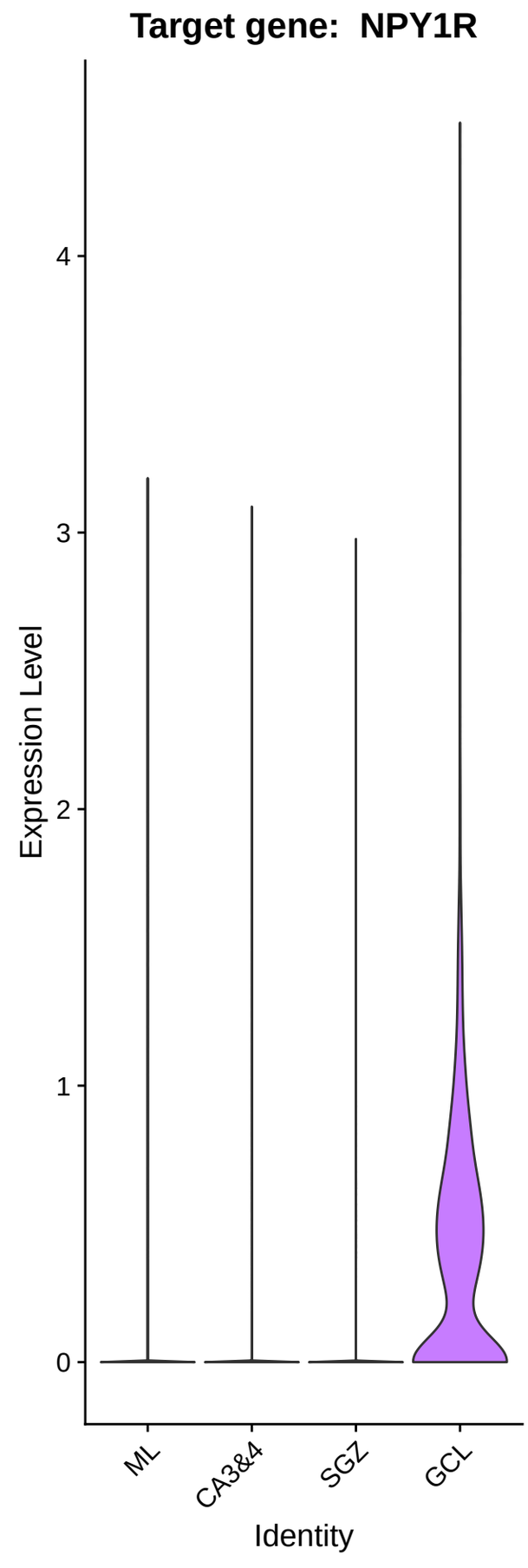

target abundance
0.02
0.01
0
Sender
ML
CA3&4
SGZ
GCL
Receiver
ML
CA3&4
SGZ
GCL
0
0.005
0.01
0.015
ligand abundance
Commu. Prob.
4e−04
3e−04
2e−04
1e−04
0
Ligand gene: CORT
Expression Level
4
2
0
ML
CA3&4
SGZ
GCL
Identity
Target gene: SSTR1
Expression Level
3
2
1
0
ML
CA3&4
SGZ
GCL
Identity

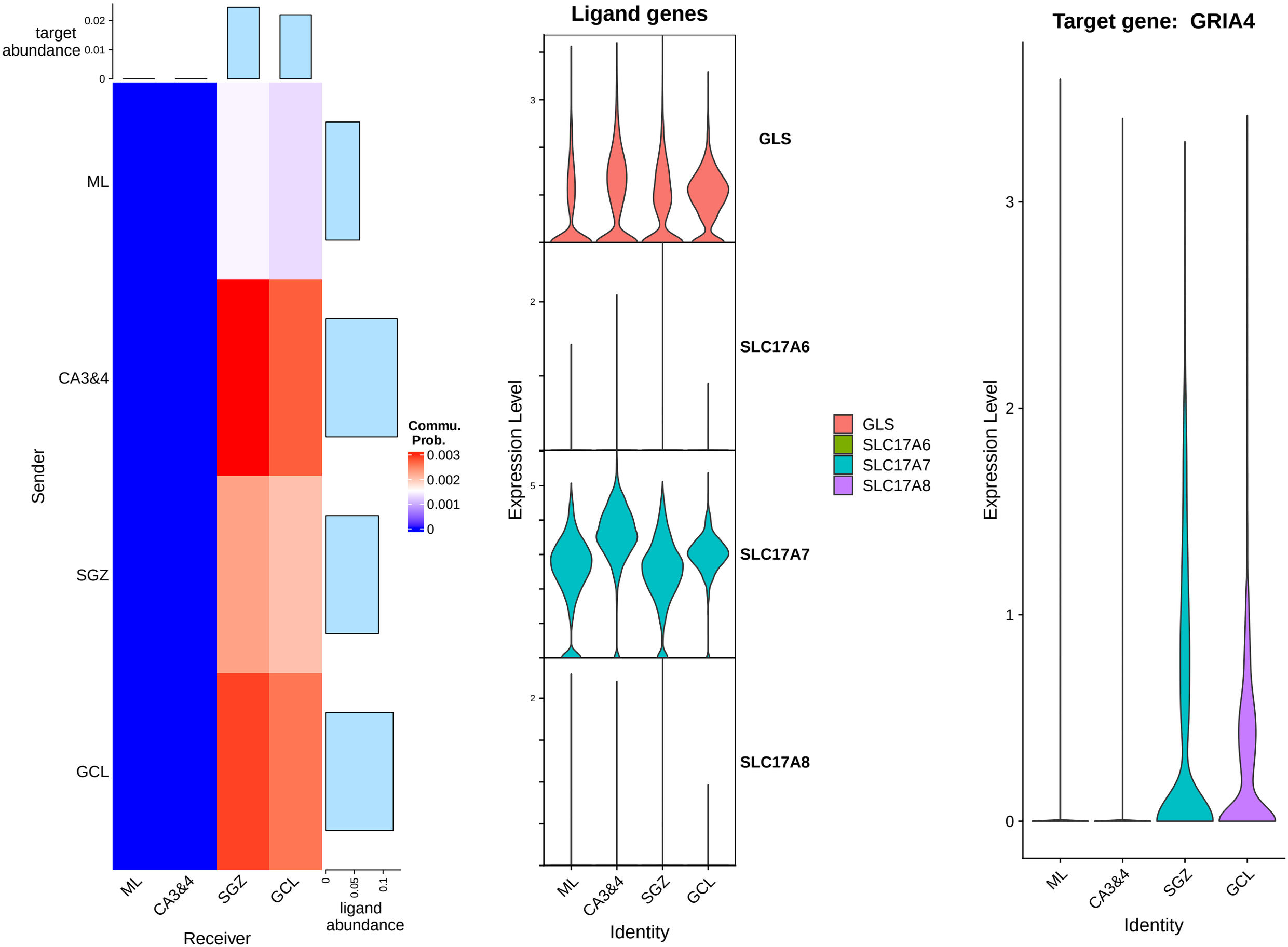

target abundance
0.006
0.004
0.002
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ligand abundance
0
0.005
0.01
0.015
0.02
Commu. Prob.
0.00015
1e−04
5e−05
0
Ligand genes
HMOX1
HMOX2
Expression Level
Identity
Target gene: GUCY1A1


target abundance
0.015
0.01
0.005
0
ML
CA3&4
SGZ
GCL
Sender
Receiver
ligand abundance
Commu. Prob.
3e−04
2e−04
1e−04
0
Ligand gene: GJB6
Target gene: GJB6
Expression Level
Identity


target
abundance
0.04
0.03
0.02
0.01
0
Sender
ML
CA3&4
SGZ
GCL
Receiver
ML
CA3&4
SGZ
GCL
0
0.05
0.1
ligand
abundance
Commu.
Prob.
0.006
0.004
0.002
0


Ligand gene: NPY
Expression Level
8
6
4
2
0
ML
CA3&4
SGZ
GCL
Identity


Target gene: NPY1R
Expression Level
4
3
2
1
0
ML
CA3&4
SGZ
GCL
Identity


target abundance
0.02
0.01
0
ML
CA3&4
SGZ
GCL
Sender
Commu. Prob.
0.003
0.002
0.001
0
ML
CA3&4
SGZ
GCL
Receiver
0
0.05
0.1
ligand abundance
Ligand genes
GLS
SLC17A6
SLC17A7
SLC17A8
Expression Level
3
2
5
2
ML
CA3&4
SGZ
GCL
Identity
GLS
SLC17A6
SLC17A7
SLC17A8
Target gene: GRIA4
Expression Level
3
2
1
0
ML
CA3&4
SGZ
GCL
Identity