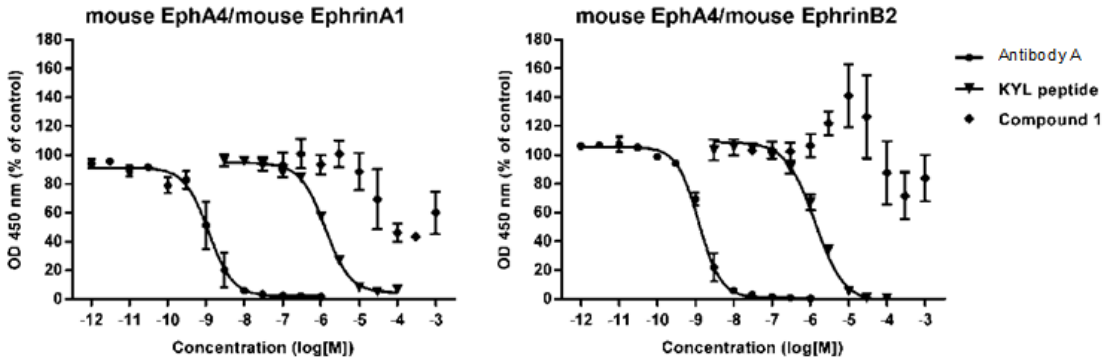
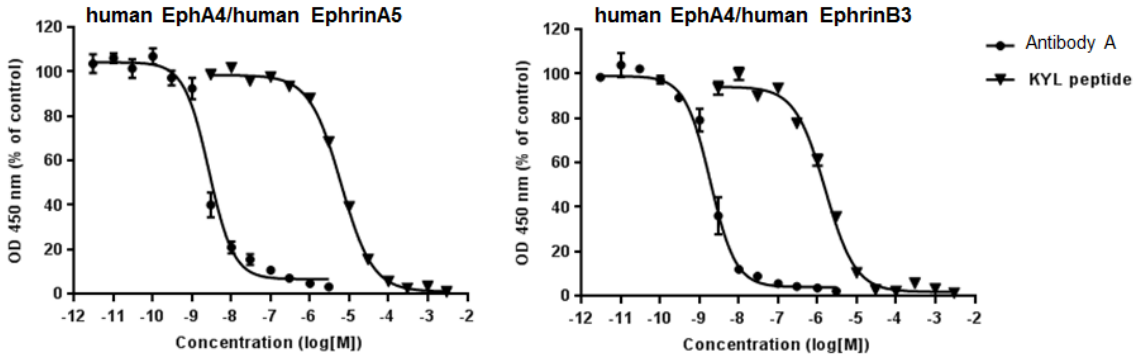
[FIG. 2]



IC_{50} values	(nM)
Antibody A	1.2
KYL peptide	1,289.0
Compound 1	---

IC_{50} values	(nM)
Antibody A	1.2
KYL peptide	1,313.0
Compound 1	---

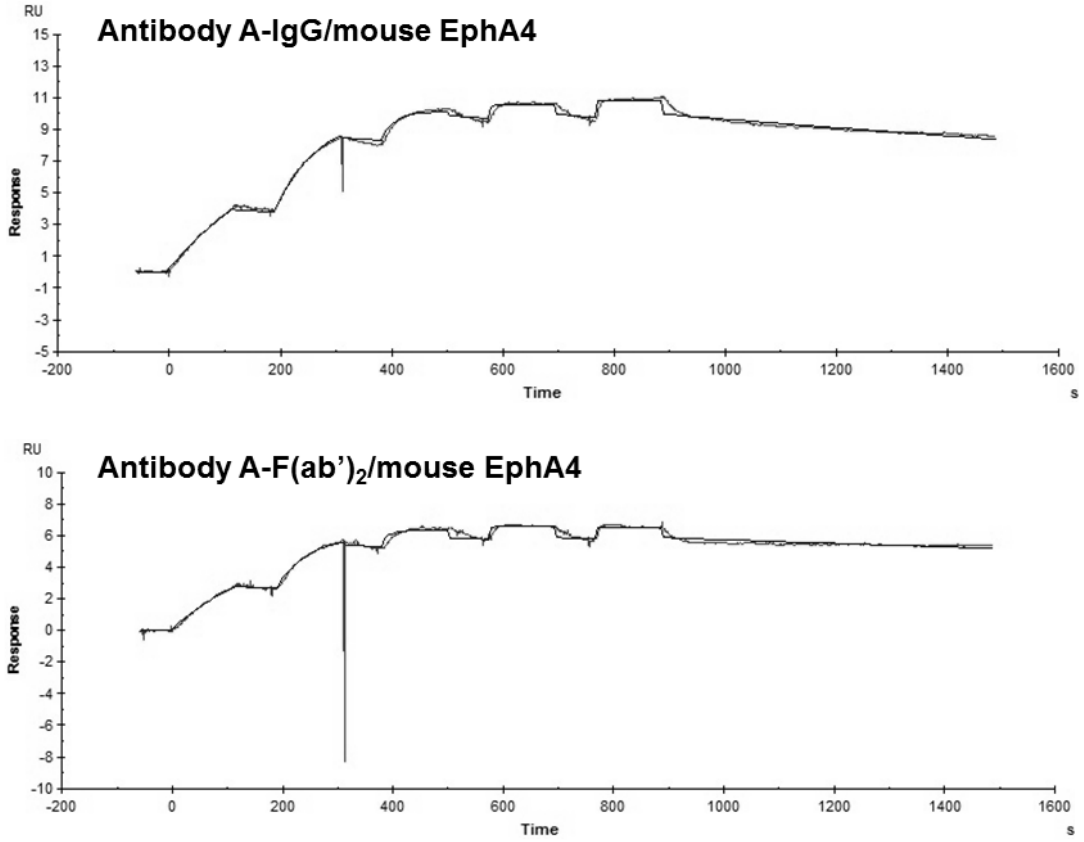
[FIG. 3]



IC_{50} values	(nM)
Antibody A	2.7
KYL peptide	6,124.0

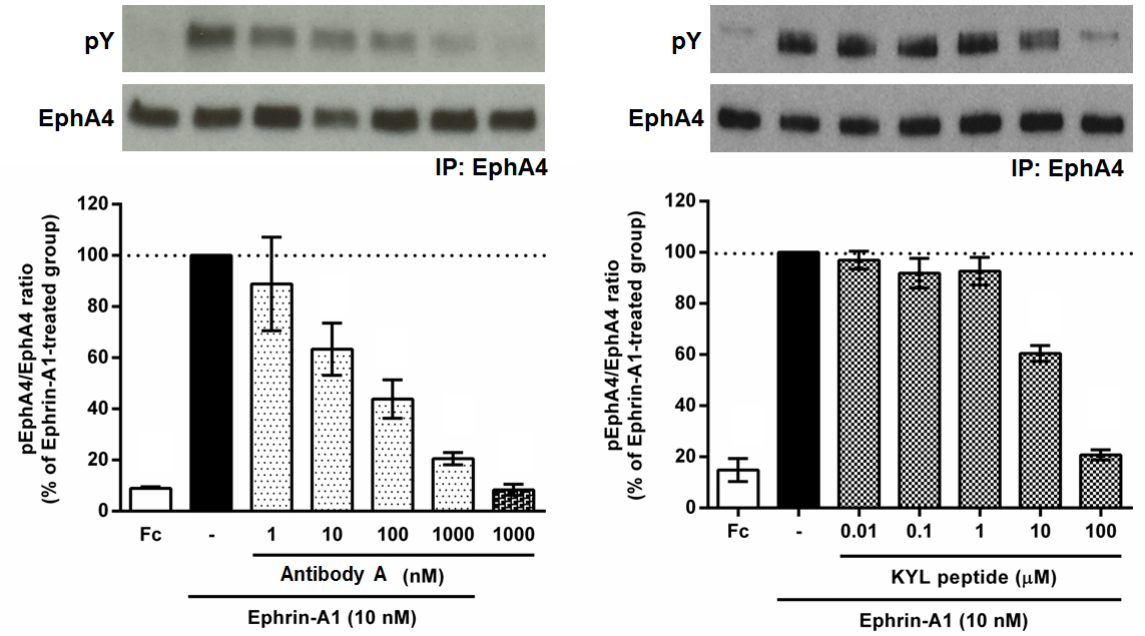
IC_{50} values	(nM)
Antibody A	1.9
KYL peptide	1,569.0

[FIG. 4B]

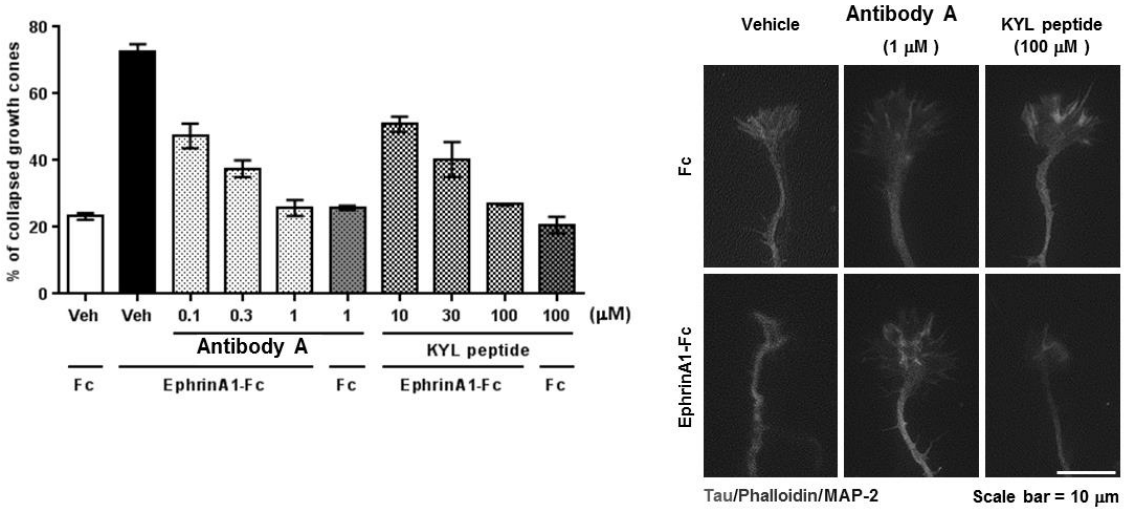


Sample	ka (1/Ms)	Kd (1/s)	KD (M)	Rmax1 (RU)	Chi² (RU²)
antibody A-IgG	6.81E+06	2.88E-04	4.23E-11	9.97	0.084
antibody A-F(ab')2	8.98E+06	2.05E-04	2.29E-11	5.87	0.067

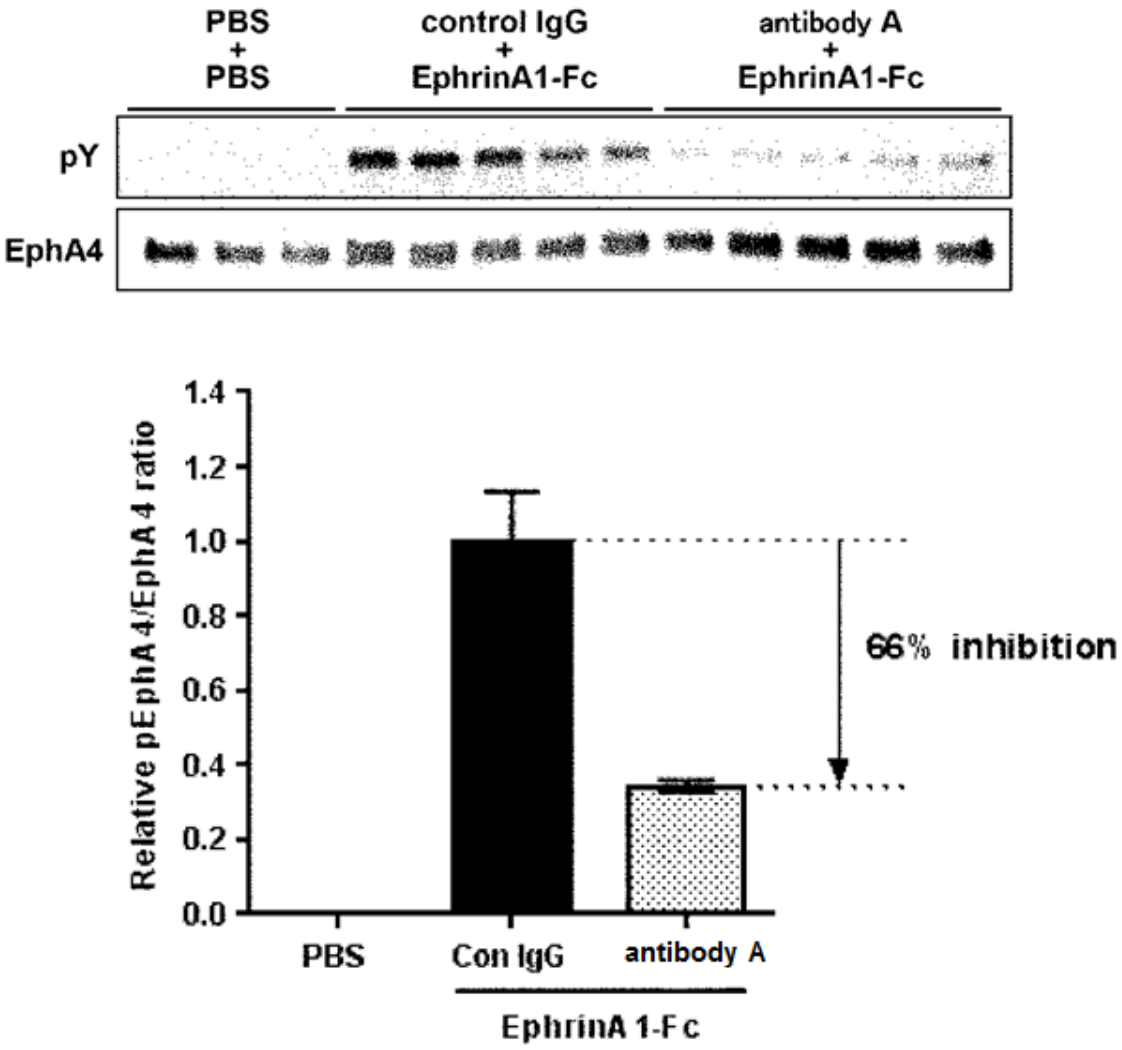
[FIG. 8]


pY
EphA4
IP: EphA4
pEphA4/EphA4 ratio
(% of Ephrin-A1-treated group)
120
100
80
60
40
20
0
Fc
-
1
10
100
1000
1000
Antibody A (nM)
Ephrin-A1 (10 nM)
pY
EphA4
IP: EphA4
pEphA4/EphA4 ratio
(% of Ephrin-A1-treated group)
120
100
80
60
40
20
0
Fc
-
0.01
0.1
1
10
100
KYL peptide (μM)
Ephrin-A1 (10 nM)

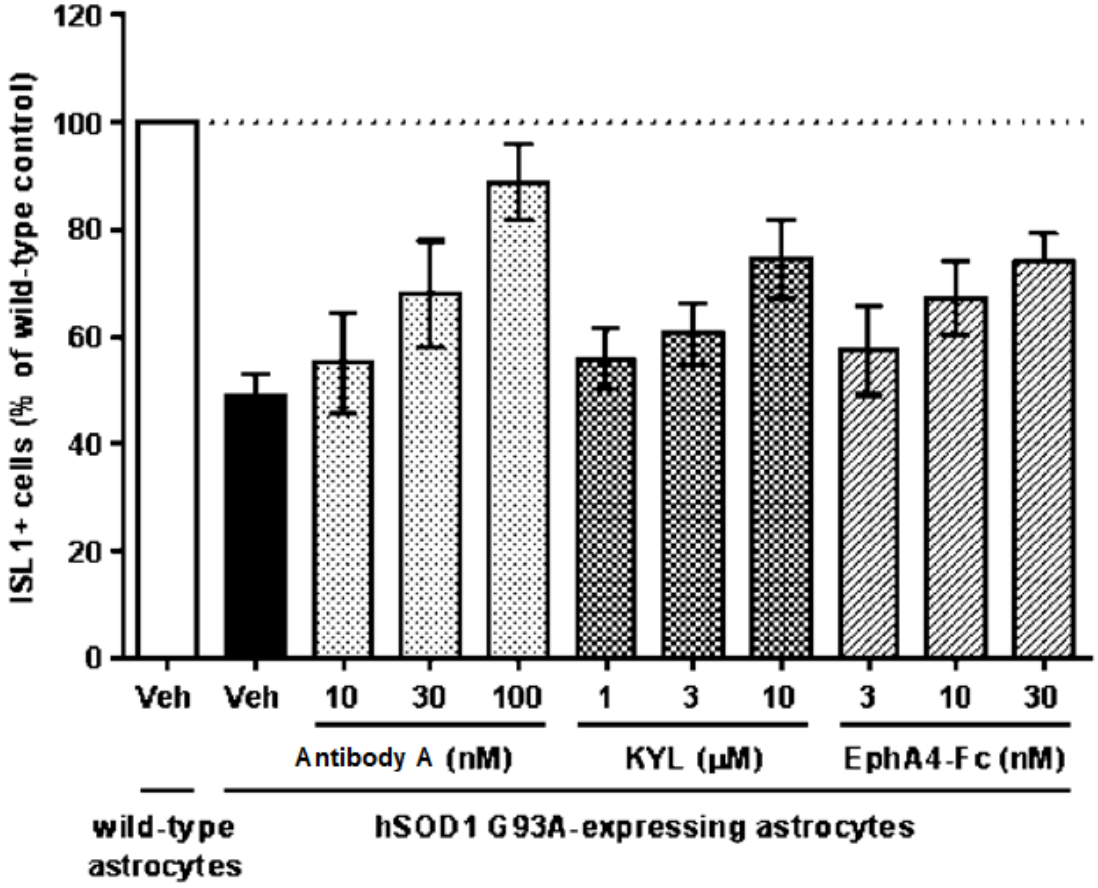
[FIG. 9]


% of collapsed growth cones
80
60
40
20
0
Veh
Veh
0.1
0.3
1
1
10
30
100
100
(μM)
Antibody A
KYL peptide
Fc
EphrinA1-Fc
Fc
EphrinA1-Fc
Fc
Vehicle
Antibody A
(1 μM)
KYL peptide
(100 μM)
Fc
EphrinA1-Fc
Tau/Phalloidin/MAP-2
Scale bar = 10 μm

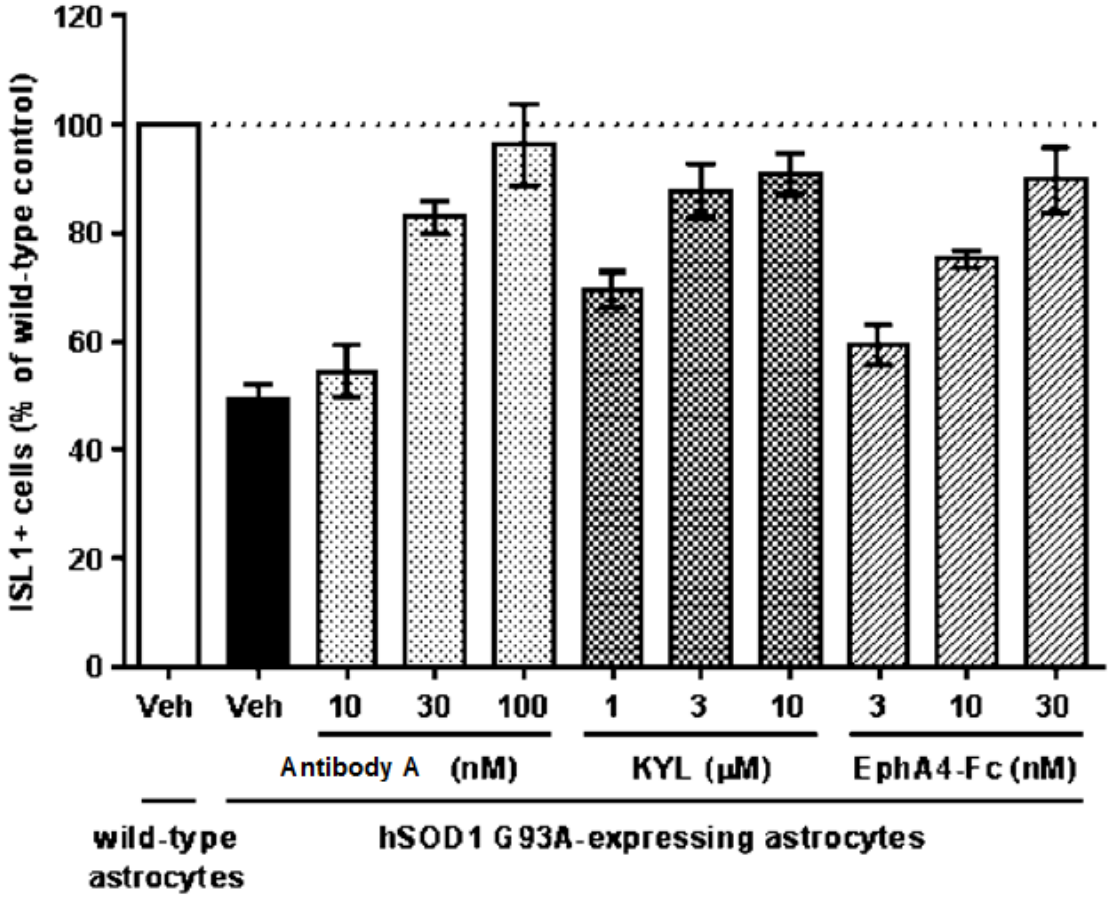
[FIG. 10]


PBS
+
PBS
control IgG
+
EphrinA1-Fc
antibody A
+
EphrinA1-Fc
pY
EphA4
Relative pEphA4/EphA4 ratio
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
66% inhibition
PBS
Con IgG
antibody A
EphrinA1-Fc

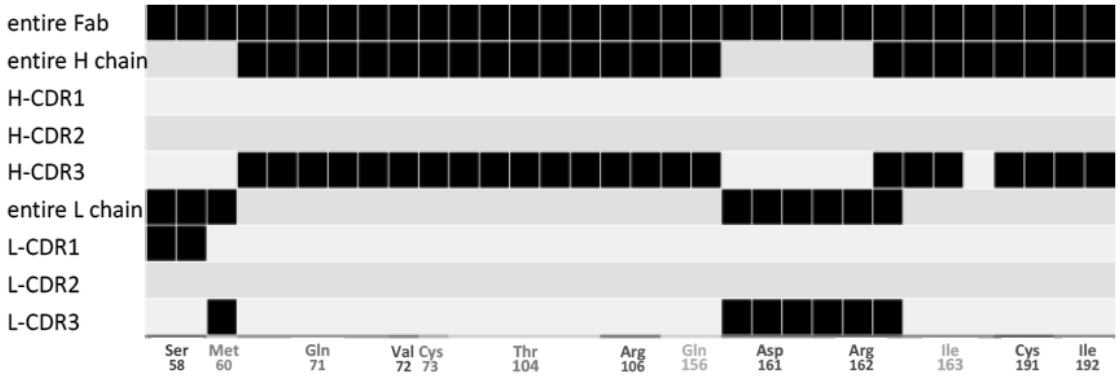
[FIG. 12]


ISL1+ cells (% of wild-type control)
120
100
80
60
40
20
0
Veh
Veh
10
30
100
1
3
10
3
10
30
Antibody A (nM)
KYL (μM)
EphA4-Fc (nM)
wild-type astrocytes
hSOD1 G93A-expressing astrocytes

[FIG. 14]


ISL1+ cells (% of wild-type control)
120
100
80
60
40
20
0
Veh
Veh
10
30
100
1
3
10
3
10
30
Antibody A (nM)
KYL (μM)
EphA4-Fc (nM)
wild-type astrocytes
hSOD1 G93A-expressing astrocytes

[FIG. 15]


entire Fab
entire H chain
H-CDR1
H-CDR2
H-CDR3
entire L chain
L-CDR1
L-CDR2
L-CDR3
Ser 58
Met 60
Gln 71
Val 72
Cys 73
Thr 104
Arg 106
Gln 156
Asp 161
Arg 162
Ile 163
Cys 191
Ile 192