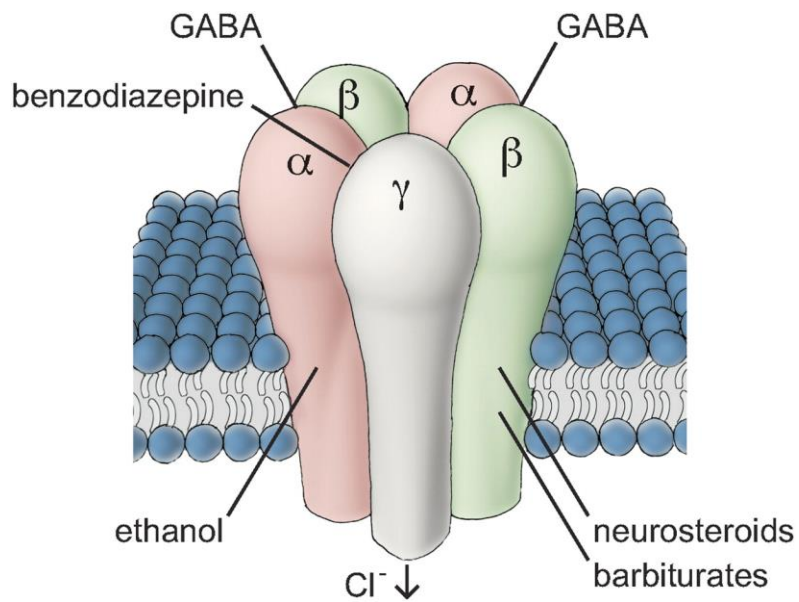


Ligand Gated Ion Channel Panel



GABA_A Assay Data Sheet

Targets	Subunits	Cells	Catalog number
GABAA1	$\alpha 1\beta 2\gamma 2$	HEK293	ICE-HEK-GABA-A1
GABAA1	$\alpha 1\beta 3\gamma 2$	HEK293	ICE-HEK-GABA-A1
GABAA2	$\alpha 2\beta 3\gamma 2$	HEK293	ICE-HEK-GABA-A1
GABAA3	$\alpha 3\beta 2\gamma 3$	HEK293	ICE-HEK-GABA-A1
GABAA4	$\alpha 4\beta 2\gamma 3$	HEK293	ICE-HEK-GABA-A1
GABAA4	$\alpha 4\beta 3\delta$	HEK293	ICE-HEK-GABA-A1
GABAA5	$\alpha 5\beta 3\gamma 2$	HEK293	ICE-HEK-GABA-A1
GABAA6	$\alpha 6\beta 2\gamma 2$	HEK293	ICE-HEK-GABA-A1

Available assays for GABAA: Patch clamp, fluorescence, Oocytes (TEVC)

GABA_A($\alpha_1\beta_2\gamma_2$) Assay Data Sheet

Channel	GABA _A ($\alpha_1\beta_2\gamma_2$)
Gene	GABRA1/GABRB2/GABRG2
Sources	Human
Catalog Reference	ICE-HEK-GABA-A1
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	Diazepam, Bicuculline
Target	Convulsive, Sedative, Anxiolytic.

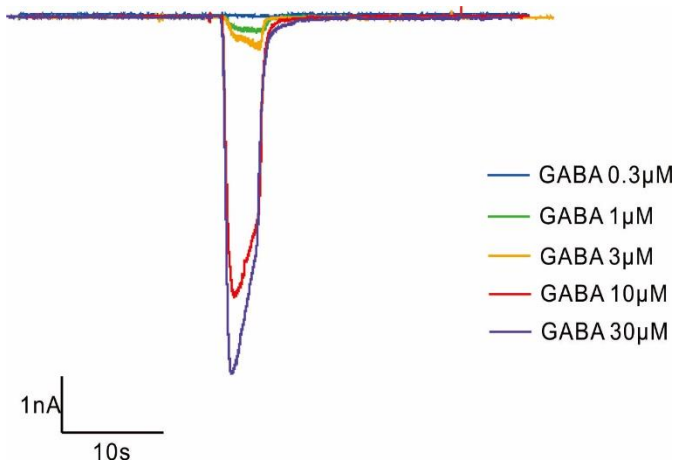


Figure 1. Representative traces of GABA_{A1} currents, evoked by GABA at different concentrations.

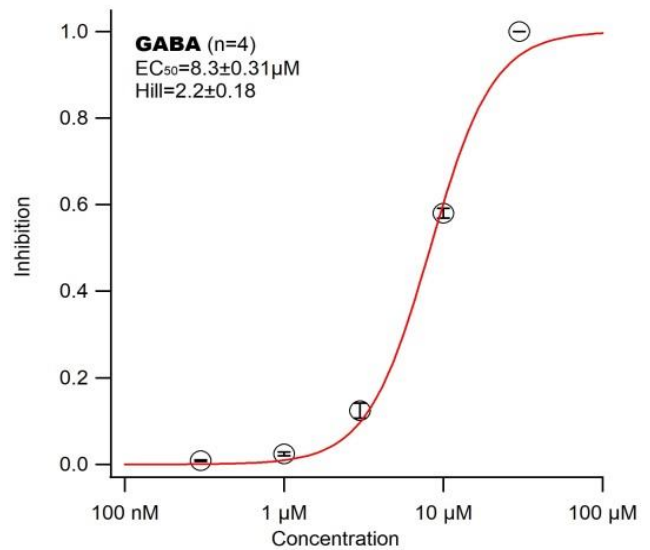
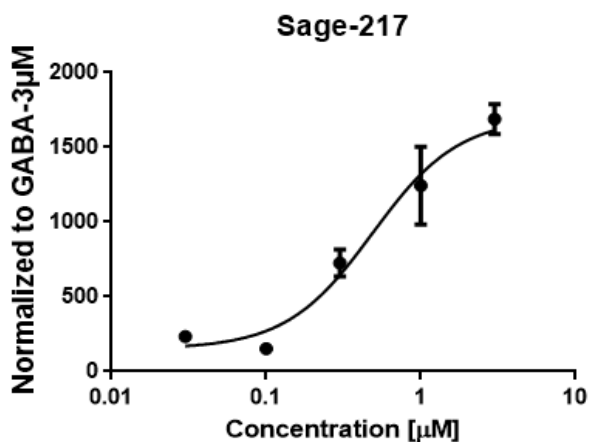


Figure 2. Concentration-dependent effect of GABA on GABA_{A1} currents.



EC₅₀ 0.4874

Figure 3. Concentration-dependent effect of Sage-217 on GABA_{A1} currents

Further validation data available on request.

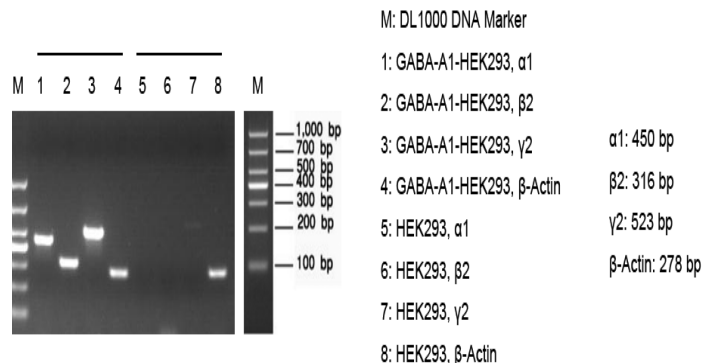


Figure 4. Expression of GABA_{A1} mRNA in the stable cell line

GABA_A($\alpha_4\beta_3\delta$) Assay Data Sheet

Channel	GABA _A ($\alpha_4\beta_3\delta$)
Gene	GABRA4/GABRB3/GABRD
Sources	Human
Catalog Reference	ICE-HEK-GABA-A4瞬转
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	Diazepam, Bicuculline
Target	Convulsive, Sedative, Anxiolytic.

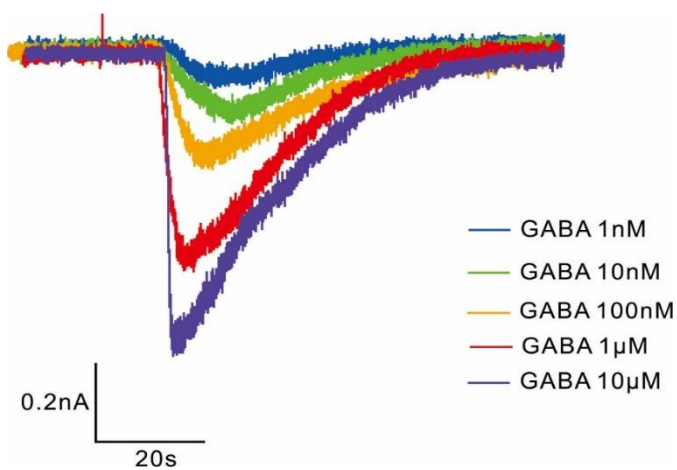


Figure 1. Representative traces of GABA_A($\alpha_4\beta_3\delta$) currents, evoked by GABA at different concentrations.

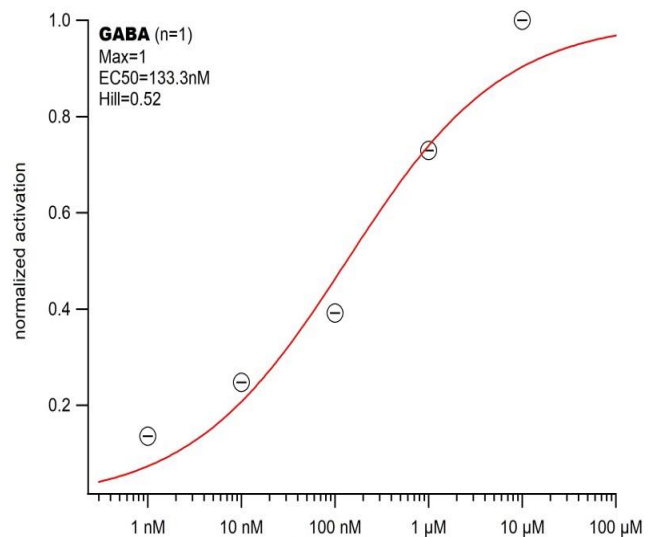


Figure 2. Concentration-dependent effect of GABA on GABA_A($\alpha_4\beta_3\delta$) currents.

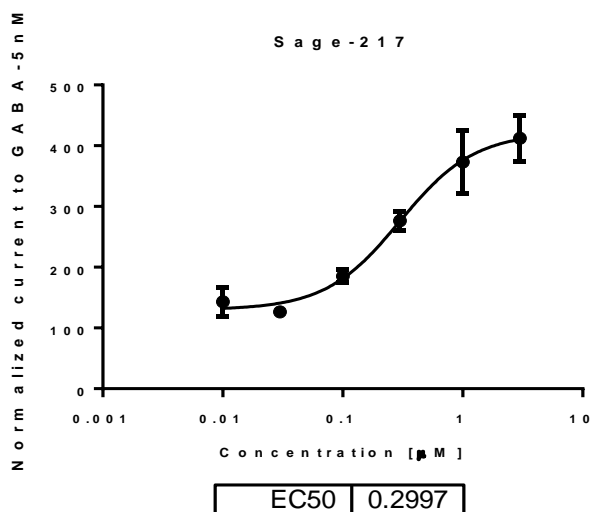
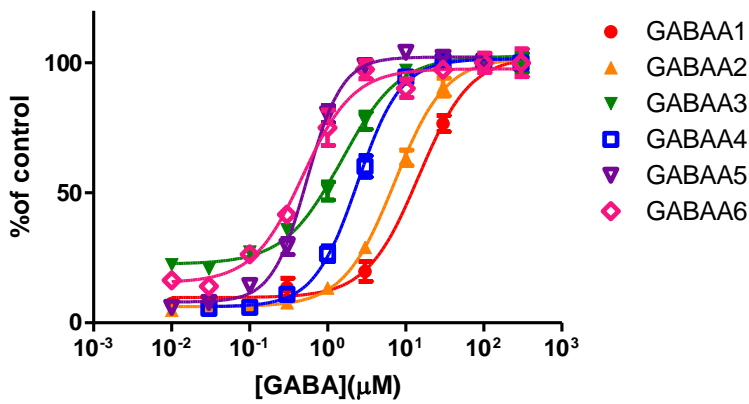
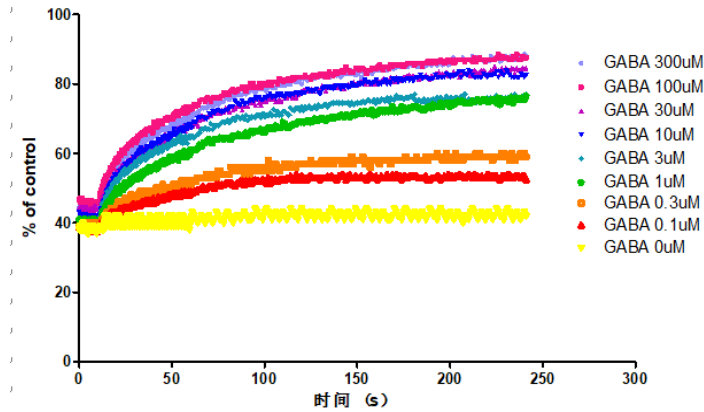


Figure 3. Concentration-dependent effect of Sage-217 on GABA_A($\alpha_4\beta_3\delta$) currents

Further validation data available on request.

Fluorescence assay of GABAA channels



Targets	GABA EC50 (μM)	Z'factor	Bicuculline EC50 (μM)	Z'factor
GABA α1β2γ2	14.6	0.879	14.29	0.65
GABA α2β3γ2	7.195	0.784	24.99	0.72
GABA α3β2γ3	1.513	0.825	52.89	0.75
GABA α4β2γ3	2.409	0.929	23.85	0.61
GABA α5β3γ2	0.5458	0.759	45.16	0.83
GABA α6β3δ	0.4823	0.598	-	-

Glutamate Receptor Assay Data Sheet

Targets	Official Symbol	Cells	Catalog number
Human NR1/NR2A	GRIN1/GRIN2A	HEK293	ICE-HEK-hNR2A
Rat NR1/NR2A	GRIN1/GRIN2A	HEK293	ICE-HEK-rNR2A
Human NR1/NR2B	GRIN1/GRIN2B	HEK293	ICE-HEK-hNR2B
Rat NR1/NR2B	GRIN1/GRIN2B	HEK293	ICE-HEK-rNR2B
Human NR1/NR2C	GRIN1/GRIN2C	HEK293	ICE-HEK-hNR2C
Human NR1/NR2D	GRIN1/GRIN2D	HEK293	ICE-HEK-hNR2D
AMPA1	GRIA1	HEK293	ICE-HEK-hNR2D

Available assays : Patch clamp, fluorescence, Oocytes (TEVC)

NMDA(NR1/2A) Assay Data Sheet

Channel	NMDA(NR1/2A)
Gene	GRIN1/GRIN2A
Sources	Human
Catalog Reference	ICE-HEK-NR2A
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	D-AP5
Target	Alzheimer's disease, Parkinson's disease, Huntington's disease, Depression.

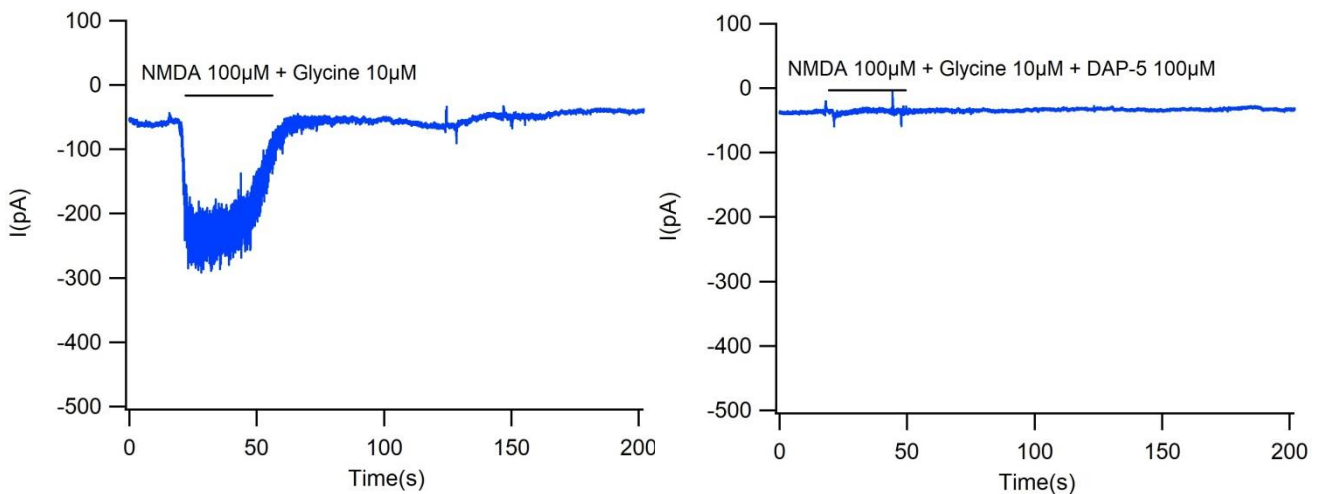


Figure 1. Representative traces of NR1/2A currents, before and after D-AP5 application.

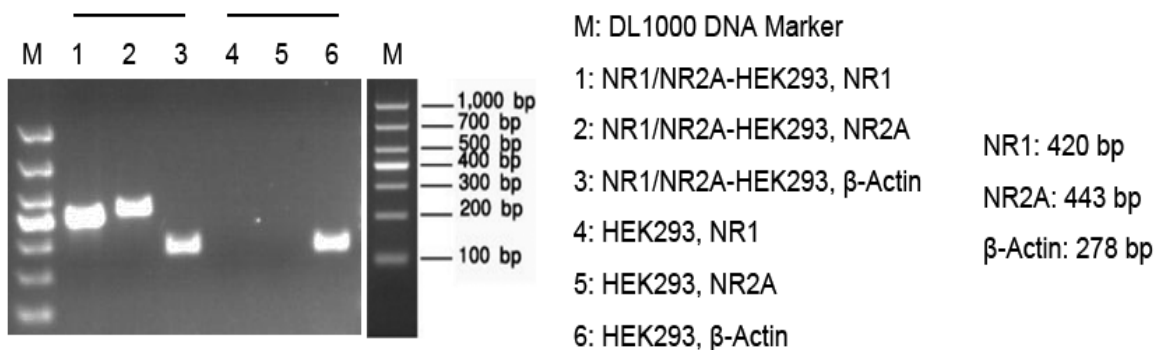


Figure 2. Expression of NR1/2A mRNA in the stable cell line

Further validation data available on request.

NMDA(NR1/2B) Assay Data Sheet

Channel	NMDA(NR1/2B)
Gene	GRIN1/GRIN2B
Sources	Human
Catalog Reference	ICE-HEK-NR1/NR2B
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	D-AP5
Target	Alzheimer's disease, Parkinson's disease, Huntington's disease, Depression.

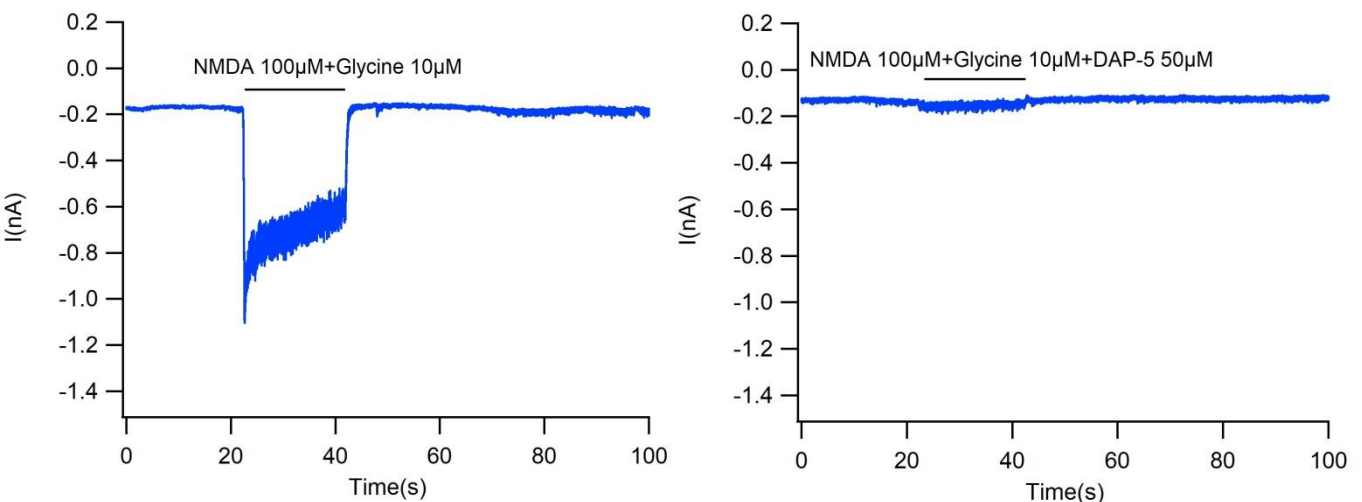


Figure 1. Representative traces of NR1/2B currents before (left) and after (right) D-AP5 application.

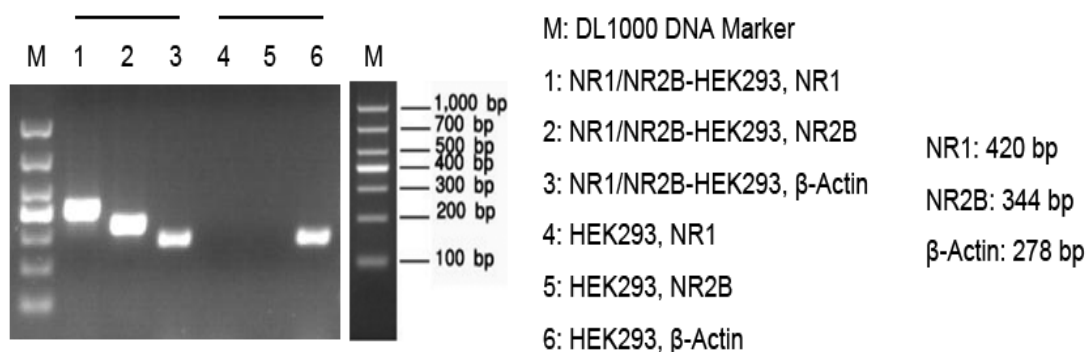


Figure 2. Expression of NR1/2B mRNA in the stable cell line

Further validation data available on request.

NMDA(NR1/2C) Assay Data Sheet

Channel	NMDA(NR1/2C)
Gene	GRIN1/GRIN2C
Sources	Human
Catalog Reference	ICE-HEK-NR1/NR2C
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	D-AP5
Target	Alzheimer's disease, Parkinson's disease, Huntington's disease, Depression.

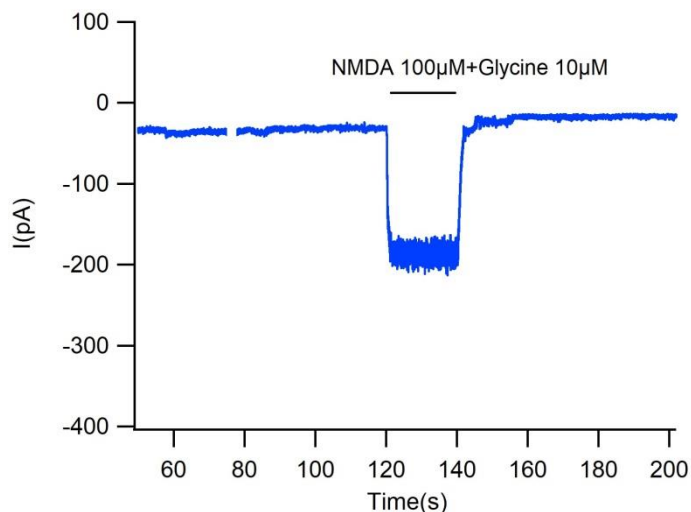


Figure 1. Representative trace of NR1/2C currents activated by 100µM NMDA and 10µM Glycine.

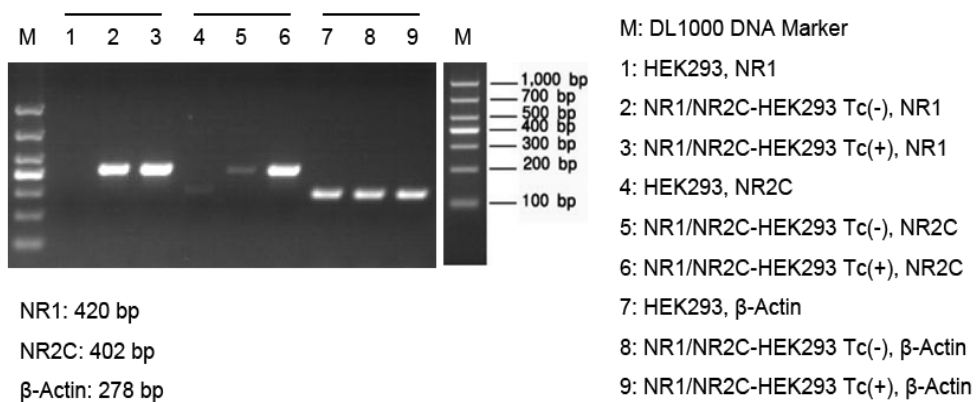


Figure 2. Expression of NR1/2C mRNA in the stable cell line

Further validation data available on request.

NMDA(NR1/2D) Assay Data Sheet

Channel	NMDA(NR1/2D)
Gene	GRIN1/GRIN2D
Sources	Human
Catalog Reference	ICE-HEK-NR1/NR2D
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	D-AP5
Target	Alzheimer's disease, Parkinson's disease, Huntington's disease, Depression.

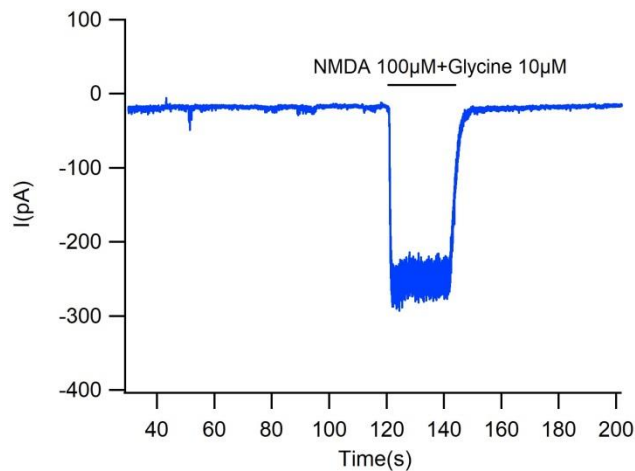


Figure 1. Representative trace of NR1/2D current activated by 100µM NMDA and 10µM Glycine.

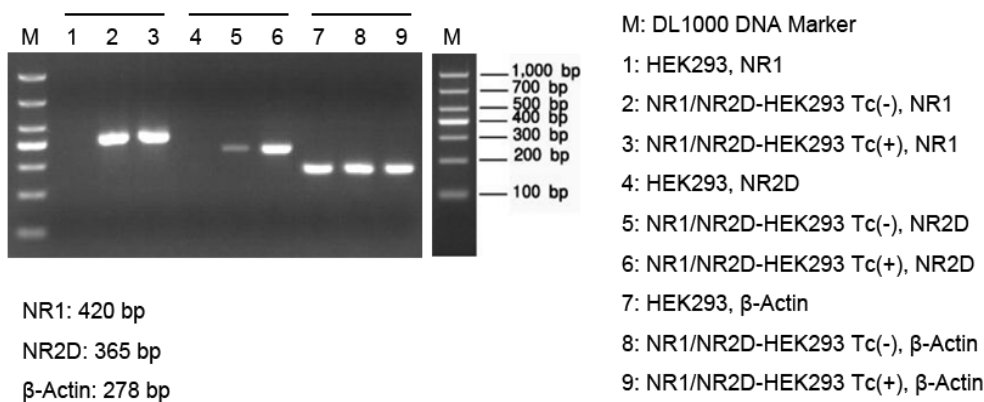


Figure 2. Expression of NR1/2D mRNA in the stable cell line

Further validation data available on request.

5HT3A Assay Data Sheet

Channel	5HT3A
Gene	HTR3A
Sources	Human
Catalog Reference	ICE-HEK-5HT3
Expression system	HEK293
Method	whole cell patch clamp
Standard time	2-4 weeks
Reference compound	Tubocurarine
Target	Schizophrenia

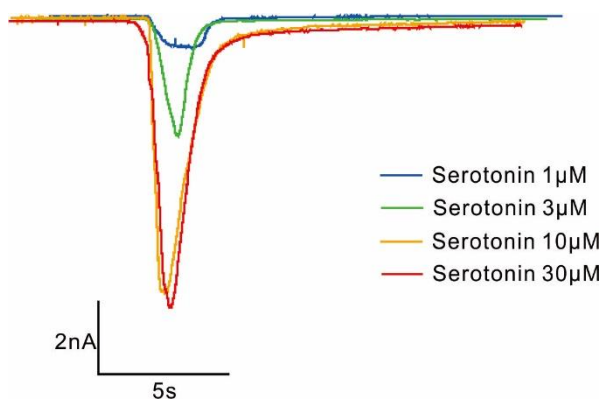


Figure 1. Representative traces of 5HT3A currents, evoked by serotonin at different concentrations.

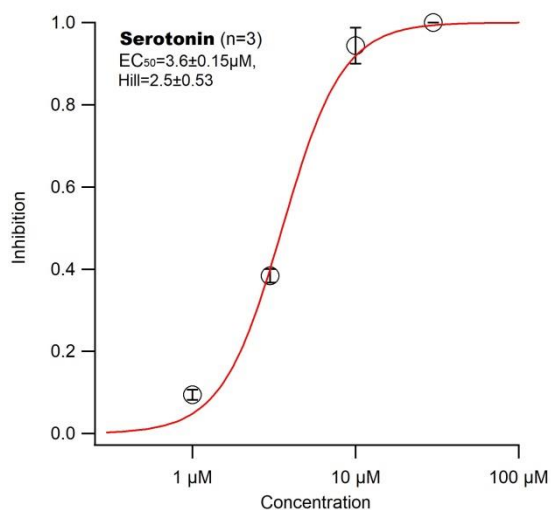


Figure 2. Concentration-dependent effect of serotonin on 5HT3A currents.

Further validation data available on request.

nAChR ($\alpha 7$) Assay Data Sheet

Channel	nAChR ($\alpha 7$)
Gene	CHRNA7/RIC3
Sources	Human
Catalog Reference	ICE-HEK- $\alpha 7$ nAChR
Expression system	HEK
Method	whole cell patch clamp
Standard time	2-4 weeks
Target	Alzheimer's disease, schizophrenia.

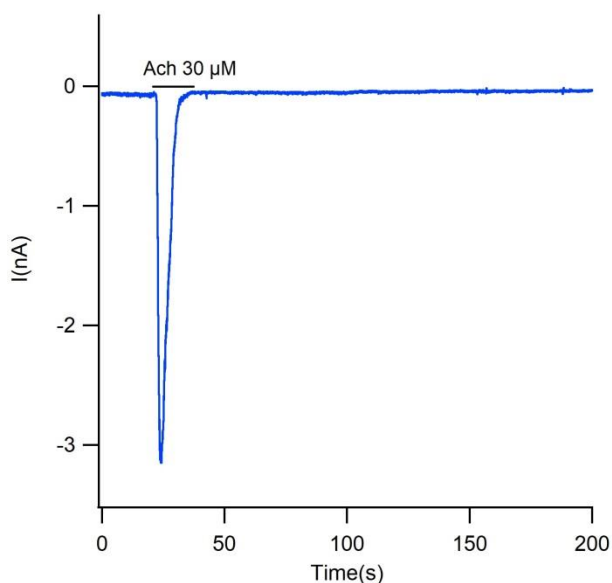


Figure 1. Representative trace of nAChR ($\alpha 7$) currents. nAChR receptors were activated by 30 μM ACh.

Further validation data available on request.