

Supplemental table 1. Cellular phenotypes of GABA_A α1 mutants:

Cortex	Cerebellum	Reference:
↑ duration of GABA-mediated IPSCs in randomly selected neurons of layer II-III of visual cortex ^	↑↑ duration of GABA-mediated IPSCs in stellate and granule cells in slices and culture *	Vicini et al., 2001 * Bosman et al., 2002 ^ Bosman et al., 2005b ^ Ortinski et al., 2004 *
No change in amplitude or frequency of GABA-mediated IPSCs ^	No change or ↓ in amplitude or frequency of IPSCs *	
↑ in α2, α3; ↓ in β2, γ2 proteins ^*	↑ in α3, α4, α6; ↓ in β2, γ2 proteins ^*	Sur et al., 2001 ^ Kralic et al., 2002a * Ogris et al., 2006 * Kralic et al., 2006 *
No change in GABA _A α2 – α6 subunit mRNA abundance ^*		Heinen et al., 2003 ^ Ogris et al., 2006 *
~ 50 % ↓ in density of GABA _A receptors ^*		Sur et al., 2001 ^ Kralic et al., 2002a *
↑ in filiform and ↓ in mushroom-shaped spines in layers II-IV of visual cortex ^		Heinen et al., 2003 ^
↓ neuronal activity in visual cortex ^		Bosman et al., 2005a ^
	↓↓ in GABA currents in Purkinje neurons ^*, but no change in firing frequency *	Sur et al., 2001 ^ Kralic et al., 2005 *

* - data from the Pittsburgh line, KO(P); ^ - data from the Merck line, KO(M).

Supplemental table 5. Results of RT-PCR. 5 genes were validated (p<0.05). All transcripts were down-regulated in knockout mice.

Gene Symbol	Full Name	Gene Bank ID	TaqMan® Assay ID	Fold Change arrays	Fold Change RT-PCR
Cortex					
Sst	Somatostatin	AI326805	Mm00436671_m1	1.13	1.43
Bet1l	Blocked early in transport 1 homolog (S. cerevisiae)-like	AI836964	Mm00479577_m1	1.41	1.41
Vamp1	Vesicle-associated membrane protein 1	AI850070	Mm00772309_g1	1.13	1.48
Cerebellum					
Scn4b	Sodium channel, type IV, beta	AI839703	Mm01175562_m1	1.24	1.34
Arhgef9	Cdc42 guanine nucleotide exchange factor (GEF) 9 (Collybistin)	AI844993	Mm01224682_m1	1.22	1.30