

## GABA

Gene Knockout	Background	Operant	2BC	DID	References
GABA-A receptor $\alpha 1$ subunit ( <i>Gabra1</i> )	not specified	↓ (30-60 min) <sup>a</sup> males/females			June et al., 2007 [145]
	B6 × 129SvEv		↓ females		Blednov et al., 2003 [55]
GABA-A receptor $\alpha 2$ subunit ( <i>Gabra2</i> )	B6 × 129SvEv		— males — females		Boehm et al., 2004 [113]
GABA-A receptor $\alpha 5$ subunit ( <i>Gabra5</i> )	B6 × 129SvEv		↓ males — females		Boehm et al., 2004 [113]
	B6 × 129SvEv	— (1 h; females)	— females		Stephens et al., 2005 [109]
GABA-A receptor $\beta 2$ subunit ( <i>Gabrb2</i> )	B6 × 129SvEv		— females		Blednov et al., 2003 [55]
GABA-A receptor $\delta$ subunit ( <i>Gabrd</i> )	B6 × 129/Sv/SvJ		↓ males/females		Mihalek et al., 2001 [26]
		— (15 min)			Shannon et al., 2004
GABA-A receptor $\rho 1$ subunit ( <i>Gabrr1</i> )	B6 × 129S4		↓ males — females — intermittent; males/females	— (2, 4 h; males/females)	Blednov et al., 2014 [288]
GABA transporter I	B6		—		Cai et al., 2006 [128]
Glutamic acid decarboxylase 2 ( <i>Gad2</i> ) <sup>b</sup>	B6 and 129/SvJ		↑ 129N2 — 129N1 — B6	— 129N2 (2, 4 h, 1B) — 129N2 (3 h, 2BC)	Blednov et al., 2010 [96]
Glyoxalase 1 (the substrate of Glo1, methylglyoxal, is a competitive GABA <sub>A</sub> receptor partial agonist) ( <i>Glo1</i> )	B6			↓	McMurray et al., 2015 [361]

—, ↓, ↑: no significant difference, decreased ethanol intake and/or preference, or increased ethanol intake and/or preference, respectively, in knockout (or *Gabra1* knockin) mice vs. wildtype mice. Male mice were tested unless indicated otherwise. Ethanol intake in the two-bottle choice (2BC) tests was measured in 24-h sessions. Drinking session times for the other tests are indicated in parentheses. <sup>a</sup>Following operant testing, the same mice underwent a one-bottle, 2-h limited access test, in which knockout mice also consumed less ethanol than wildtype. <sup>b</sup>There were no differences between 129N2 and wildtype mice using a SHAC model. DID, drinking in the dark; 1B, one bottle. Recommended mouse protein and gene (in italics) names are from Uniprot. B6 refers to C57BL/6J mice.