Dopamine

Gene Knockout/ Overexpression*	Background	Operant	2BC	DID	SIP	References
D_{1A} dopamine receptor (*Drd1*)	B6		↓ (limited, continuous access)			El Ghundi et al., 1998 [8]
D_2 dopamine receptor (*Drd2*)	B6	↓ (23 h)				Risinger et al., 2000 [15]
	B6 males/females		↓ ethanol-naive — ethanol-sensitized			Palmer et al., 2003 [45]
	B6		↓			Thanos et al., 2005 [93]
	B6 males/females		↓			Phillips et al., 1998 [132]
	B6		↓ ↑ KO, ↓ WT chronic stress			Delis et al., 2013 [281]
D_2 long receptor	B6			↑ (4 h; males/females)		Bulwa et al., 2011 [238]
D_2*	B6		↓ WT, transient ↑ KO			Thanos et al., 2005 [93]
D_3 dopamine receptor (*Drd3*)	B6	— (23 h)	—			Boyce-Rustay and Risinger, 2003 [47]
	B6			↓ (4 h)		Leggio et al., 2019 [375]
	B6		↓	↓ (4 h)		Leggio et al., 2014 [298]
D_4 dopamine receptor (*Drd4*)	B6129/Ola × B6		—			Falzone et al., 2002 [35]
Sodium-dependent dopamine transporter, DAT (*Slc6a3*)	B6		— males ↓ females			Savelieva et al., 2002 [37]
	B6				↓ (40 min; males/females)	Mittleman et al., 2011 [226]
	B6 × 129Sv		↑ 24% males — females			Hall and Uhl, 2003 [51]
Synaptic vesicular amine transporter-2 (*Slc18a2*)	B6 × 129Sv		↑ high concentrations; males — females			Hall and Uhl, 2003 [51]
Dopamine β-hydroxylase (*Dbh*)	B6 × 129/SvEv		↓			Weinshenker et al., 2000 [20]

−, ↓, ↑: no significant difference, decreased ethanol intake and/or preference, or increased ethanol intake and/or preference, respectively, in knockout (KO) or mice overexpressing D2* *vs*. wildtype (WT) mice. Male mice were tested unless indicated otherwise. Deletion of the long form of D_2 produces overexpression of the short relative to the long form. 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 parenthesis. DID, drinking in the dark; SIP, scheduled-induced polydipsia. Recommended mouse protein and gene (in italics) names are from Uniprot. B6 refers to C57BL/6J mice.