**Kinases**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Gene Knockout/****Overexpression\*** | **Background** | **Operant** | **2BC** | **CIE-2BC** | **DID** | **References** |
| cAMP-dependent protein kinase type II-β regulatory subunit (*Prkar2b*) | B6 × 129/SvJ |  | ↑ males/females |  |  | Thiele et al., 2000 [21] |
|  | B6 | genotype/sex interactions | ↑ males/females |  |  | Ferraro et al., 2006 [122] |
|  | B6 |  | ↑ males/females |  |  | Fee et al., 2004 [134] |
|  | B6 × 129/SvEv  |  | ↑ males/females |  |  | Fee et al., 2004 [134] |
| Protein kinase C (PKC) ε type (*Prkce*) | B6 × 129 SvJae | ↓↓ ADE |  |  |  | Olive et al., 2000 [14] |
|  | B6 × 129 SvJae × FVB/N |  | ↓  |  |  | Choi et al., 2002 [41] |
|  | B6 × 129 SvJae |  | ↓ (23 h) |  |  | Hodge et al., 1999 [82] |
|  | B6 × 129 SvJae |  | ↓ (16 h) |  |  | Olive et al., 2005 [85] |
|  | B6 × 129S4 |  | ↓ ↓ post-tolerance  |  |  | Wallace et al., 2007 [112] |
|  | B6 ×129/SvJae |  | ↓  |  |  | Besheer et al., 2006 [127] |
|  | B6 × 129S4/SvJae |  |  |  | ↓ (2 h), knockdown in amygdala | Lesscher et al., 2009 [194] |
|  | C57BL/6J ×129S4 |  | ↓ males/females (24 h) |  |  | Blasio et al., 2018 [329] |
|  PKC γ type (*Prkcg*)PKC ζ type (*Prkcz*) | B6 × 129/SvEvTacB6 × 129S6/SvEvTac |  | ↑ males/females↑ (4, 24 h intermittent)— continuous |  | — (4 h) | Bowers and Wehner, 2001 [84]Lee et al., 2014 [299] |
|  Tyrosine-protein kinase Fyn (*Fyn*) | B6 × 129SF2/J |  | ↓  |  |  | Boehm et al., 2003 [56] |
|   | 129/SvJ |  | — (23 h) |  |  | Yaka et al., 2003 [116] |
|   | B6 × CBA |  | — — ADE— post-stress |  |  | Cowen et al., 2003 [140] |
|  *Fyn*\* | B6 × 129/Sv |  | ↓ males/females |  |  | Boehm et al., 2004 [76] |
|   | B6 |  | ↓  |  |  | Stork et al., 2002 [139] |
| cGMP-dependent protein kinase 2 (*Prkg2*) | B6N, 129/SvN |  | ↑  |  |  | Werner et al., 2004 [124] |
| Serine/threonine-protein kinase, TAO2 (*Taok2*) | B6 |  |  |  | ↑ (4 h) | Kapfhamer et al., 2013 [269] |
|  Anaplastic lymphona kinase (*Alk*) | B6 |  |  |  | ↑ (4 h intermittent) | Lasek et al., 2011 [240] |
|  | C57BL/6J |  |  | — males/females (15%, 2 h) |  | Schweitzer et al., 2016 [336] |

–, ↓, ↑: no significant difference, decreased ethanol intake and/or preference, or increased ethanol intake and/or preference, respectively, in mutant *vs*. wildtype/control mice. Male mice were tested unless indicated otherwise. Ethanol intake in the two-bottle choice (2BC) tests was measured in 24-h sessions, unless otherwise indicated. Session times for operant tests were 16 h, and drinking in the dark (DID) session times are indicated in parenthesis. ADE, alcohol deprivation effect. Recommended mouse protein and gene (in italics) names are from Uniprot. B6 refers to C57BL/6J and mice.