

**Supplementary Table S1.** Pharmacological parameters of insect and human GABA receptors.

| Protein (Accnb)                               | GABA                  |                | fipronil<br>IC <sub>50</sub> (μM) | picrotoxin<br>IC <sub>50</sub> (μM) |
|---|-----------------------|----------------|-----------------------------------|-------------------------------------|
|   | EC <sub>50</sub> (μM) | p              |                                   |                                     |
| <i>A. pisum RDL1</i>                          | 23.8 ± 2.5(20)        | 2.4 ± 0.3 (20) | 0.31 ± 0.11(19)                   | 0.7 ± 0.2 (12)                      |
| <i>A. pisum RDL1<sub>ad</sub>* AXY92182.1</i> | 23 ± 1.7              | 1.6 ± 0.1      | 0.64 ± 0.15                       | ND                                  |
| <i>A. pisum RDL1<sub>bd</sub>*</i>            | 51 ± 9.1              | 2.0 ± 0.3      | 0.18 ± 0.06                       | ND                                  |
| <i>A. pisum RDL2<sub>b</sub>* AXY92183.1</i>  | 28 ± 5.4              | 1.0 ± 0.1      | 0.72 ± 0.19                       | ND                                  |
| <i>A. mellifera RDLAE68941.1</i>              | 19.3 ± 3.5(13)        | 2.1 ± 0.2 (13) | 0.07 ± 0.2(9)                     | 0.6 ± 0.1(15)                       |
| <i>V. destructor RDL1#AVY53069.1</i>          | 269 ± 41 (10)         | 2.3 ± 0.2 (10) | >500 μM                           | >500 μM                             |
| <i>V. destructor RDL2#AYR04938.1</i>          | 14.8 ± 1.4 (13)       | 1.8 ± 0.2 (13) | 0.77 ± 0.25(11)                   | 0.7 ± 0.5 (14)                      |
| <i>V. destructor RDL3#AVY53071.1</i>          | 43.1 ± 10.4 (9)       | 2.3 ± 0.1 (9)  | 3.64 ± 1.74(5)                    | 0.6 ± 0.1 (10)                      |
| <i>H. sapiens α2β2γ2&amp;</i>                 | 27.4 ± 4.4(10)        | 1.4 ± 0.1 (10) | 1.88 ± 0.39(9)                    | 1.2 ± 0.1 (4)                       |
| <i>H. sapiens α4β2γ2&amp;</i>                 | 6.9 ± 2.1(21)         | 1.4 ± 0.2 (21) | ND                                | 1.6 ± 0.2 (4)                       |

\* : see (8) for results ; #and &see (7) and (14) for partial characterization.