**S1 Table – Kinetic constants included in the cluster analysis of functional descriptors.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | ***Aa*AChE1** | ***Ag*AChE1** | ***Ag*AChE1-G119S** | ***m*AChE** | ***h*AChE** |
| ***Vmax*(mA/min)** | ATChI | 100a | 100a | 100a | 100a | 100a |
| PTChI | 65,5a | 77,1a | 26,4a | 50,6a | 52,3a |
| ***KM*(µM)** | ATChI | 25 | 27 | 58 | 84 | 146 |
| PTChI | 20 | 25 | 315 | 59 | 150 |
| ***Kcat* (s-1)** | ATChI | 140 | 124 | 4b | 2333c | 6167d |
| ***ki*(µM-1 min-1)** | eserine | 24,8 | 27,26 | 1,18 | 1,36 | 2,66 |
| propoxur | 1,2 | 1,11 | 0,00015b | 0,092 | 0,081 |
| ***IC50* (µM)** | ethopropazine | 4,6 | 8,3 | 1000 | 1000 | 1000 |
| donepezil | 0,28 | 0,24 | 0,31 | 0,007 | 0,008 |
| C7653 | 0,36 | 0,44 | 1,3 | 0,2e | 0,36 |
| C5685R  | 21 | 58 | 69 | 0,7f | 1,3f |
| C5685S | 210 | 285 | 63 | 0,7f | 1,4f |

aIn percent of Vmax(ATChI) bEstimated values based on [[54](#_ENREF_54)], c[[53](#_ENREF_53)] d[[48](#_ENREF_48)] e[[41](#_ENREF_41)]f[[42](#_ENREF_42)]