

Supplementary Table S1. List of bonding interactions between selected three bioactive compounds and standard drug CPUY192018 with Keap1 protein.

| Compound (CID) | Residues | Amino acid | Distance (Å) | Bond category |
|--------------------------|----------|------------|--------------|---------------|
| Hemidescine 101664025 | 366X | ALA | 3.77 | Hydrophobic |
| | 514X | VAL | 3.85 | Hydrophobic |
| | 561X | VAL | 3.80 | Hydrophobic |
| | 367X | GLY | 2.89 | Hydrogen |
| | 415X | ARG | 2.67 | Hydrogen |
| | 416X | ILE | 2.32 | Hydrogen |
| | 418X | VAL | 2.76 | Hydrogen |
| | 561X | VAL | 3.26 | Hydrogen |
| | 561X | VAL | 2.68 | Hydrogen |
| | 563X | GLN | 3.33 | Hydrogen |
| | 326X | ARG | 4.85 | Salt bridge |
| Beta-Amyrin 73145 | 366X | ALA | 3.90 | Hydrophobic |
| | 418X | VAL | 3.44 | Hydrophobic |
| | 514X | VAL | 3.51 | Hydrophobic |
| | 561X | VAL | 3.93 | Hydrophobic |
| Quercetin 5280343 | 366X | ALA | 3.93 | Hydrophobic |
| | 367X | GLY | 2.14 | Hydrogen |
| | 415X | ARG | 1.89 | Hydrogen |
| | 415X | ARG | 2.30 | Hydrogen |
| | 465X | VAL | 2.31 | Hydrogen |
| | 465X | VAL | 2.44 | Hydrogen |
| | 510X | ALA | 2.08 | Hydrogen |
| | 512X | VAL | 2.72 | Hydrogen |
| | 606X | VAL | 2.39 | Hydrogen |
| CPUY192018 73330369 | 514X | VAL | 3.66 | Hydrophobic |
| | 367X | GLY | 2.46 | Hydrogen |
| | 418X | VAL | 1.55 | Hydrogen |
| | 465X | VAL | 1.97 | Hydrogen |
| | 561X | VAL | 2.09 | Hydrogen |
| | 608X | VAL | 3.26 | Hydrogen |

Supplementary Figure S1: Keap1 protein grid box

