

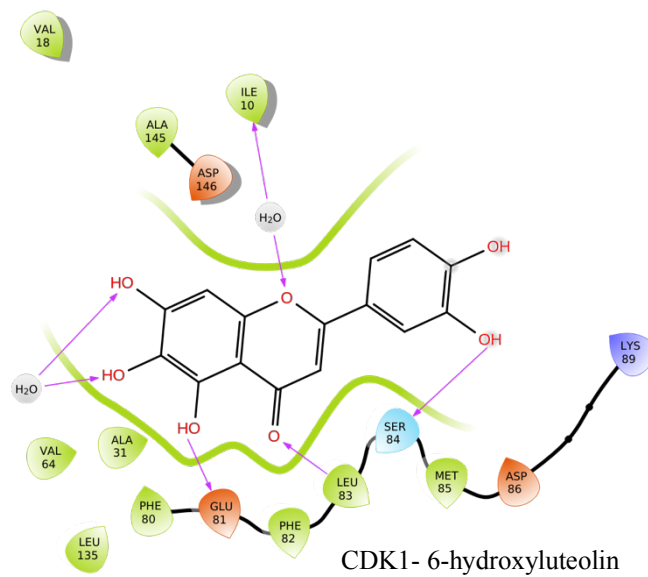
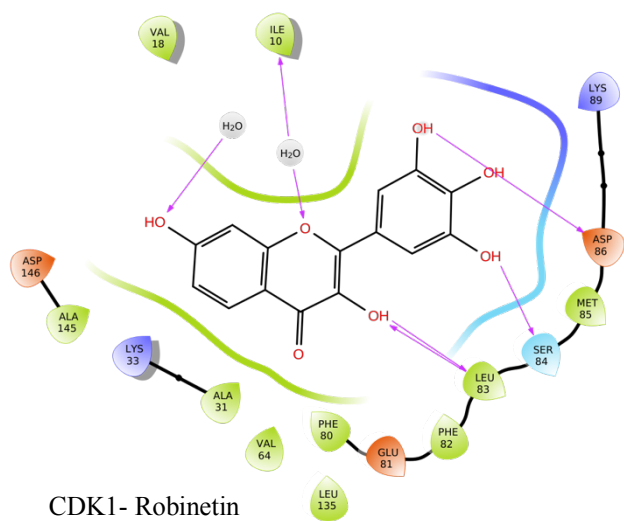
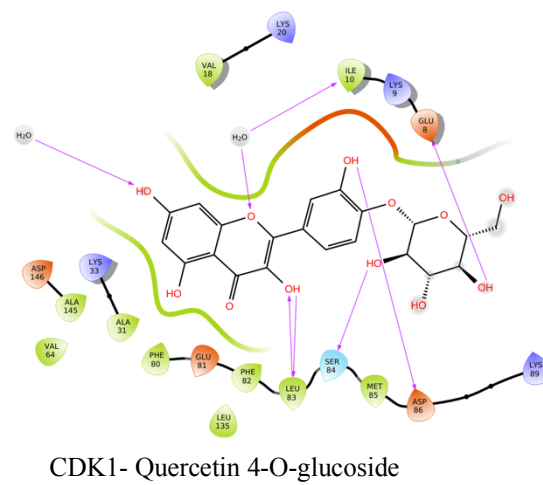
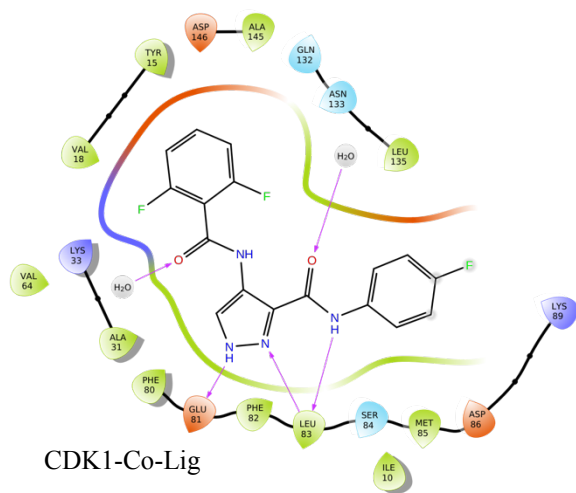
Table 1. Molecular Docking results

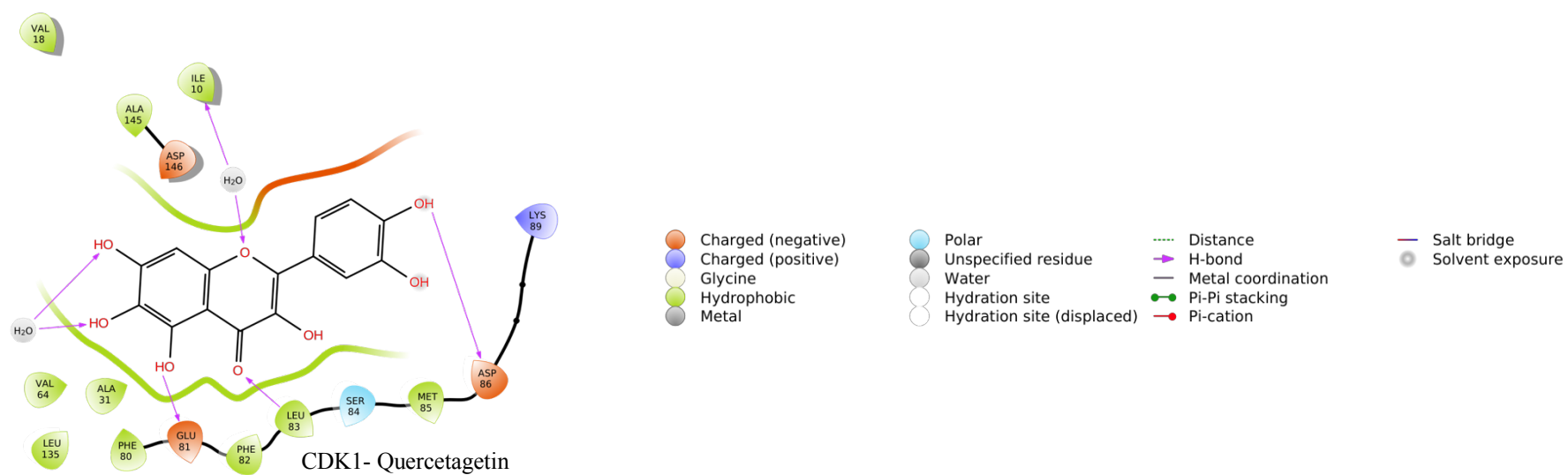
| Compound                | Pubchem ID | Docking score | MMGBSA dG Bind |
|-------------------------|------------|---------------|----------------|
| Co-lig (LZ9)            | 24864079   | -13.993       | -90.48         |
| Quercetin 4-O-glucoside | 5320844    | -12.470944    | -71.23         |
| Robinetin               | 5281692    | -12.216882    | -59.84         |
| 6-hydroxyluteolin       | 5281642    | -12.069299    | -74.77         |
| Quercetagetin           | 5281680    | -12.065921    | -60.97         |

Table 2: ADME properties of the compounds from QikProp

| Compound                | Mol_MW  | Donor HB | Accept HB | SASA    | QLogPo/w | QLogS  | QLogHERG | QLogBB | QPPCaco | Rule Of Five |
|-------------------------|---------|----------|-----------|---------|----------|--------|----------|--------|---------|--------------|
| Co-lig (LZ9)            | 360.295 | 1        | 4.5       | 605.515 | 3.835    | -5.51  | -6.227   | -0.704 | 577.385 | 0            |
| Quercetin 4_O glucoside | 464.382 | 7        | 13.75     | 693.403 | -1.434   | -2.8   | -5.518   | -3.996 | 2.275   | 2            |
| Robinetin               | 302.24  | 5        | 6.25      | 509.856 | -0.16    | -2.524 | -4.907   | -2.348 | 18.577  | 0            |
| 6hydroxyluteolin        | 302.24  | 4        | 5.25      | 510.091 | 0.333    | -2.772 | -4.908   | -2.344 | 18.748  | 0            |
| Quercetagetin           | 318.239 | 5        | 6         | 516.226 | -0.225   | -2.471 | -4.807   | -2.673 | 9.915   | 1            |

<sup>a</sup>Molecular weight (acceptable range <500)<sup>b</sup>Hydrogen bonds donor, HB donor = 0.0-6.0<sup>c</sup>Hydrogen bonds acceptor' HB acceptor = 2.0-20.0<sup>d</sup>Total solvent accessible surface area, SASA = 300.0-1000.0<sup>e</sup>Predicted octanol/water partition coefficient, QP log Po/w = -2.0-6.5<sup>f</sup>Predicted aqueous solubility, QLogS = -6.5-0.5<sup>g</sup>Predicted IC<sub>50</sub> value for blockage of HERG K<sup>+</sup> channels, QLogHERG = Concern below -5<sup>h</sup>Predicted blood/brain partition coefficient, QLogBB = -3.0-1.2





2D Protein-ligand interaction diagrams of CDK1 and the lead compounds