

## Supplementary Material

### Screening and Identification of Herbal Urease Inhibitors Using Surface Plasmon Resonance Biosensor

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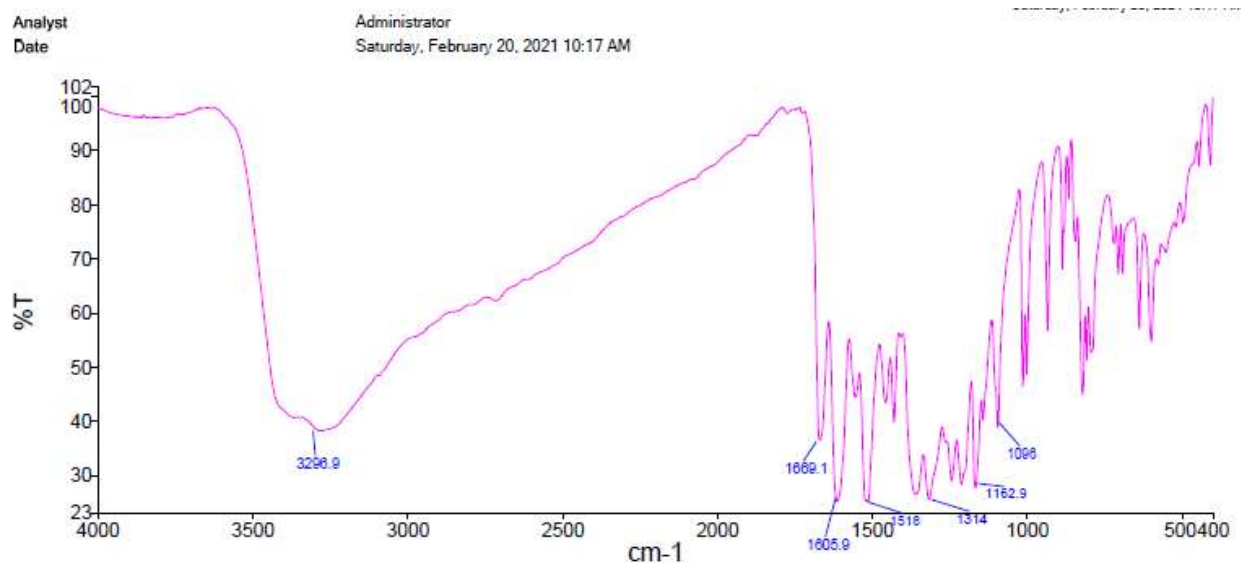
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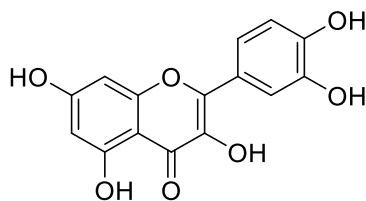
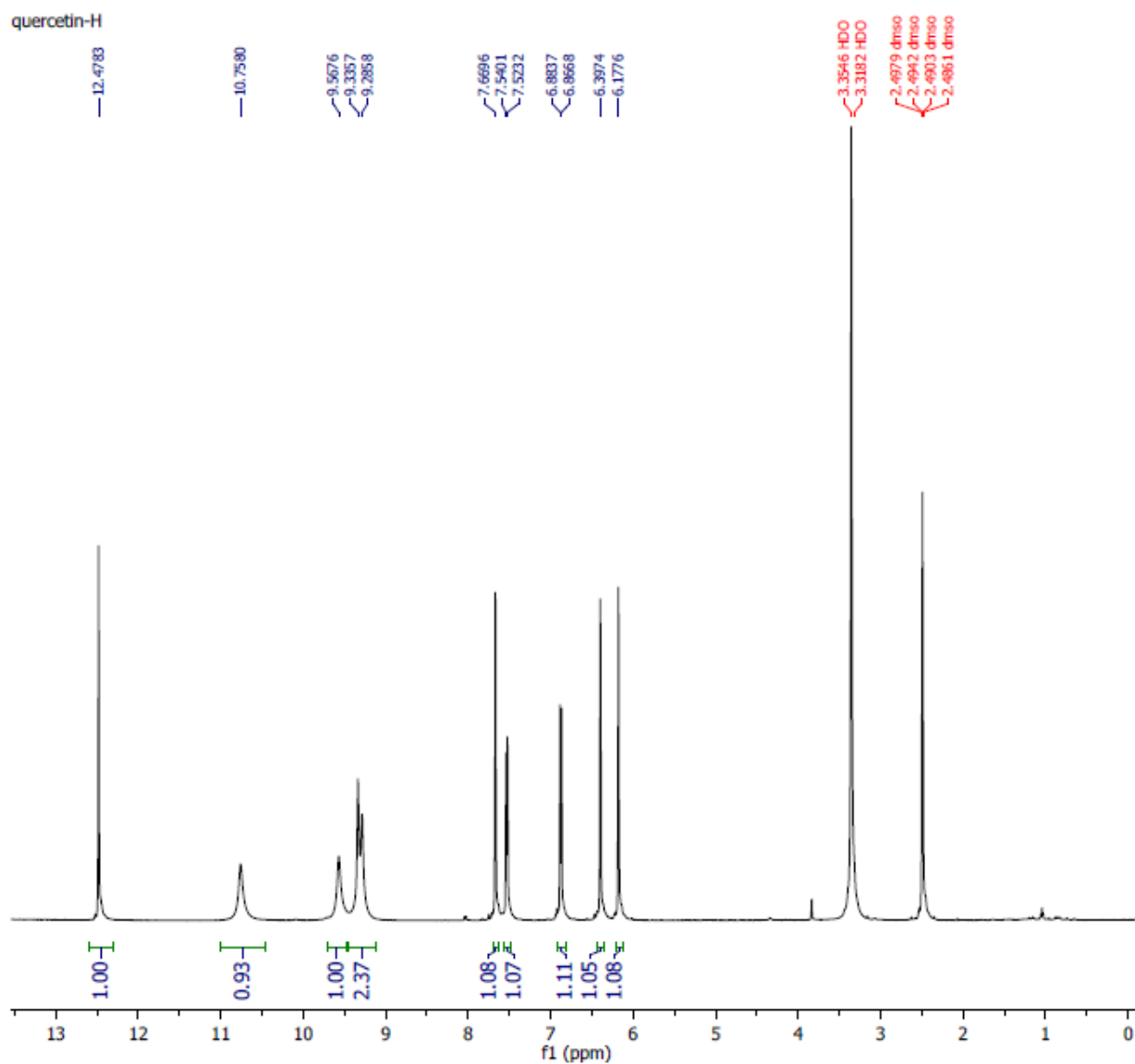
**Table S2.** Docking analysis of urease/quercetin interaction.

#### Figure S1



**The Infra-Red spectra of isolated quercetin.**

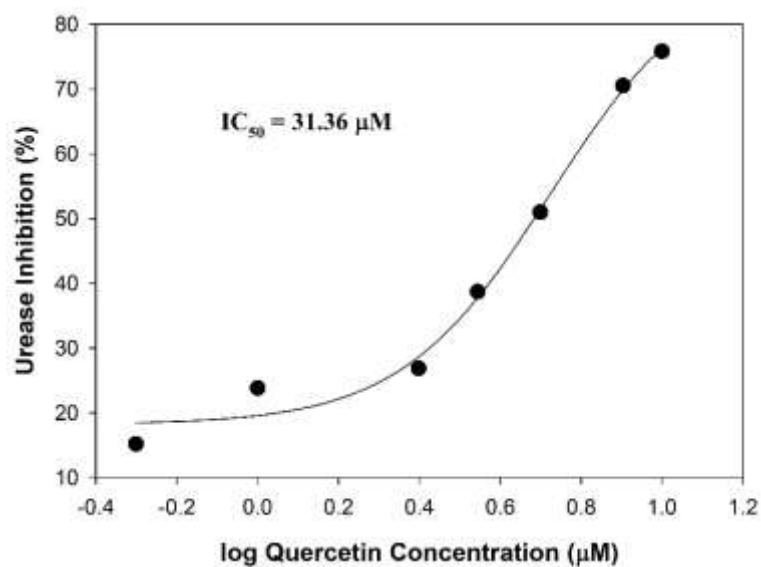
Figure S2



<sup>1</sup>H NMR (500 MHz, DMSO-*d*<sub>6</sub>)  $\delta$  (ppm) 12.47 (1H, s, OH), 10.75 (1H, s, OH), 9.56 (1H, s, OH), 9.33 (1H, s, OH), 9.28 (1H, s, OH) 7.67 (1H, d,  $J$  = 2.4 Hz, H-2'), 7.53 (1H, dd,  $J$  = 8.5, 2.3 Hz, H-6'), 6.88 (1H, d,  $J$  = 8.5 Hz, H-5'), 6.40 (1H, d,  $J$  = 2.2 Hz, H-8), 6.18 (1H, d,  $J$  = 2.2 Hz, H-6).

The <sup>1</sup>H NMR spectra of isolated quercetin.

**Figure S3**



**Jack-bean urease percent inhibition vs. quercetin concentration.**

**Table S1.** Voucher No. of the 40 studied plants.

No	Scientific name and plant family	Voucher No.
1	<i>Acorus calamus</i> L. (Acoraceae)	SBMU-8150
2	<i>Achillea millefolium</i> L. (Asteraceae)	SBMU-8151
3	<i>Allium cepa</i> L. (Amaryllidaceae)	SBMU-8152
4	<i>Allium sativum</i> L. (Amaryllidaceae)	SBMU-8153
5	<i>Allium schoenoprasum</i> L. (Amaryllidaceae)	SBMU-8154
6	<i>Angelica archangelica</i> (Apiaceae)	SBMU-8155
7	<i>Asclepias syriaca</i> L. (Apocynaceae)	SBMU-8156
8	<i>Brassica nigra</i> L. (Brassicaceae)	SBMU-8157
9	<i>Berberis integerrima</i> Bunge. (Berberidaceae)	SBMU-8158

10	<i>Boswellia carterii</i> (Burseraceae)	SBMU-8159
11	<i>Cerasus avium</i> (L.) Moench. (Rosaceae)	SBMU-8160
12	<i>Citrullus colocynthis</i> (L.) Schrad. (Cucurbitaceae)	SBMU-8161
13	<i>Citrus aurantifolia</i> (Christm.) (Rutaceae)	SBMU-8162
14	<i>Citrus aurantium</i> L. (Rutaceae)	SBMU-8163
15	<i>Colchicum</i> sp. (Colchicaceae)	SBMU-8164
16	<i>Crocus sativus</i> L. (Iridaceae)	SBMU-8165
17	<i>Datura stramonium</i> L. (Solanaceae)	SBMU-8166
18	<i>Dorema ammoniacum</i> Don. (Umbelliferae)	SBMU-8167
19	<i>Fraxinus velutina</i> L. (Velvet Ash)	SBMU-8168
20	<i>Foeniculum vulgare</i> L. (Apiaceae)	SBMU-8169
21	<i>Humulus lupulus</i> L. (Cannabinaceae)	SBMU-8170
22	<i>Heracleum persicum</i> Desf. (Apiaceae)	SBMU-8171
23	<i>Helianthus tuberosus</i> L. (Asteraceae)	SBMU-8172
24	<i>Hyssopus officinalis</i> L. (Labiatae)	SBMU-8173
25	<i>Laurus nobilis</i> L. (Lauraceae)	SBMU-8174
26	<i>Malva sylvestris</i> L. (Malvaceae)	SBMU-8175
27	<i>Matricaria recutita</i> L. (Asteraceae)	SBMU-8176
28	<i>Morus alba</i> L. (Moraceae)	SBMU-8177
29	<i>Nardostachys jatamansi</i> L. (Caprifoliaceae)	SBMU-8178
30	<i>Nigella sativa</i> L. (Ranunculaceae)	SBMU-8179
31	<i>Onopordum acanthium</i> L. (Asteraceae)	SBMU-8180
32	<i>Peganum harmala</i> L. (Nitrariaceae)	SBMU-8181

33	<i>Piper nigrum</i> L. (Piperaceae)	SBMU-8182
34	<i>Quercus alba</i> L. (Fagaceae)	SBMU-8183
35	<i>Rubia tinctorum</i> L. (Rubiaceae)	SBMU-8184
36	<i>Rubus</i> sp. (Rosaceae)	SBMU-8185
37	<i>Spinacia oleracea</i> L. (Amaranthaceae)	SBMU-8186
38	<i>Trigonella foenum-graecum</i> L. (Fabaceae)	SBMU-8187
39	<i>Teucrium polium</i> L. (Lamiaceae)	SBMU-8188
40	<i>Zingiber officinale</i> L. (Zingiberaceae)	SBMU-8189

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**Table S2** Docking analysis of urease/quercetin interaction.

<b>Factor</b>	Est. free energy of binding (kcal.mol <sup>-1</sup> )	Est. inhibition Constant K <sub>i</sub> (nM)	Final intermolecular energy (kcal.mol <sup>-1</sup> )	Vdw+Hbond+desolv (kcal.mol <sup>-1</sup> )	Electrostatic energy (kcal.mol <sup>-1</sup> )
<b>value</b>	-6.80	671.87	-8.59	-4.69	-2.90

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