Supplementary Information for

Neuroprotective Effects of Isoquercetin: An In Vitro and In Vivo Study

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**Fig.S1:** Showed the effect of isoquercetin and colchicine on the level of BDNF. Method as described in the material and method. Data shows mean ± SEM of 6 rats in each group. Significant difference represent as compared to colchicine control group rats. *; P<0.05, **; P<0.01, BDNF; Brain-derived neurotrophic factor, IQ; Isoquercetin, and MM; Memantine.

**Fig.S2:** Showed the effect of isoquercetin and colchicine on the level of Aβ peptide. Method as described in the material and method. Data shows mean ± SEM of 6 rats in each group. Significant difference represent as compared to colchicine control group rats. *; P<0.05, **; P<0.01, IQ; Isoquercetin, and MM; Memantine.

**Fig.S3:** Showed the effect of isoquercetin and colchicine on the level of AchE activity. Method as described in the material and method. Data shows mean ± SEM of 6 rats in each group. Significant difference represent as compared to colchicine control group rats. *; P<0.05, **; P<0.01, ***; P<0.001, IQ; Isoquercetin, and MM; Memantine.

**Fig.S4:** Showed the effect of isoquercetin and colchicine on the level of protein carbonyl. Method as described in the material and method. Data shows mean ± SEM of 6 rats in each group. Significant difference represent as compared to colchicine control group rats. *; P<0.05, **; P<0.01, ***; P<0.001, IQ; Isoquercetin, and MM; Memantine.
Fig. S5: Showed the effect of isoquercetin and colchicine on the level of pro-inflammatory cytokines. Method as described in the material and method. Data shows mean ± SEM of 6 rats in each group. Significant difference represent as compared to colchicine control group rats. *, P<0.05; **, P<0.01, ***, P<0.001, IL-1β; Interleukin-1β, TNF-α; Tumor necrosis factor-α, IL-6; Interleukin-6, IQ; Isoquercetin, and MM; Memantine.

Fig. S6: Showed the effect of isoquercetin and colchicine on the level of NF-κB. Method as described in the material and method. Data shows mean ± SEM of 6 rats in each group. Significant difference represent as compared to colchicine control group rats. **, P<0.01, ***, P<0.001, TNF-α; Tumor necrosis factor-α, IQ; Isoquercetin, and MM; Memantine.