Supplementary Material

Influence of Silybum Marianum on Morphine Addicted Rats, Biochemical Parameters and Molecular Simulation Studies on μ-Opioid Receptor

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Highlights

- The extracts of Milk thistle were extract by Soxhlet extractor.
- Extract of Silybum marianum (SM) exhibited significant effects in increasing of morphine concentrations in addicted rats.
- The studies on ALT and AST showed that the herbal drug was significantly decreasing of liver transaminase levels.
- Its antioxidant activity of the extracts prevented lipid peroxidation.
The activities of superoxide dismutase (SOD) of artichoke extract was significantly increasing.

Silibinin as the main component is more selective towards on $\mu$-Opioid Receptor than Morphine and Naloxane.
Fig. 1S Serum control with various Morphine concentrations. Samples at concentrations of 10, 20, 40, 80, 160 and 320 ng/mL of morphine.