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Biological active compounds from *Morus alba* root bark

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In vitro biological screening of 26 mulberry constituents identified promising candidate drugs for further biological research. Antiviral, antibacterial, anti-inflammatory, and antiplasmodial activities were evaluated. Five prenylated compounds, together with a phenolic ester, proved to possess inhibitory activity against the replication of HSV-1 or HSV-2 with IC₅₀ (EC₅₀) values of 0.64–1.93 µg/mL. Molecular docking studies for HSV were performed for active compounds. Several compounds exhibited significant growth inhibition of all bacterial strains tested with MICs values 1–16 µg/mL. Furthermore, one compound was found to inhibit COX-2 with a greater activity than positive control indomethacin.

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