Magnolol is a lignan originally found in Magnolia bark that exhibits neuromodulatory, cognition enhancing, antimicrobial, anti-osteoporotic, anti-diabetic, anti-hyperlipidemic, antitumor, anti-inflammatory, antioxidative, neuroprotective, and anti-angiogenic activities. Magnolol potentiates activity at GABA-A receptors and inhibits scopolamine-induced oxidative dysfunction and learning and memory deficits in animal models of Alzheimer’s disease. Magnolol also displays antifungal activity against Trichophyton, Microsporum, Epidermophyton, Aspergillus, Candida, and Cryptococcus. Additionally, this compound increases growth, collagen synthesis, and mineralization in osteoblasts while decreasing differentiation and inflammatory cytokine expression. In diabetic animal models, magnolol inhibits oxidative damage and decreases serum levels of glucose and lipids. In breast cancer cells, magnolol downregulates expression of matrix metalloproteinase 9 (MMP9) and inhibits activation of NF-κB, suppressing invasion. Magnolol inhibits tube formation, vessel sprouting, and migration in other cellular models. In macrophages, this compound downregulates LPS-stimulated expression of toll-like receptor 4 (TLR4), IL-6, TNF-α, and IL-1β.

References

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.