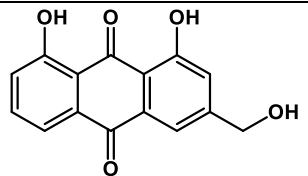


Aloe emodin

Name of the Phytochemical	Aloe emodin
Chemical Structure	
Botanical Source	Aloe barbadensis
CAS Number	481-72-1
Functional Activity	<ul style="list-style-type: none"> • Shows significant inhibitory activity against the P-388 leukemia • Has a specific in vitro and in vivo antineuroectodermal tumor activity • Demonstrates anti-tumor activity ($ED_{50} = 1-13 \mu M$), inducing apoptosis in various cancer cells by increasing the production of reactive oxygen species • Have estrogenic activity, shown to inhibit breast cancer cell proliferation by downregulating ERα protein levels • An interferon-inducing agent
Key References	<ol style="list-style-type: none"> 1. Emodin induces chloride secretion in rat distal colon through activation of mast cells and enteric neurons. British Journal of Pharmacology, 2012, 165, 197-207 2. Emodin-provoked oxidative stress induces apoptosis in human colon cancer HCT116 cells through a p53-mitochondrial apoptotic pathway. Asian Pac.J.Cancer Prev., 2014, 15, 5201-5205 3. Aloe-emodin is a new type of anticancer agent with selective activity against neuroectodermal tumors. Cancer Research, 2000, 60, 2800-2804 4. Emodin and aloe-emodin suppress breast cancer cell proliferation through ERα inhibition. Evidence-Based Complementary and alternative Medicine, 2013, 1-12

	<ol style="list-style-type: none"> 5. Aloe-emodin suppresses prostate cancer by targeting the mTOR complex 2. Carcinogenesis, 2012, 33, 1406-11 6. Emodin sensitizes the gemcitabine-resistant cell line Bxpc-3/Gem to gemcitabine via downregulation of NF-κB and its regulated targets. Int J Oncol., 2013, 42, 1189-96 7. Inhibition of β-Amyloid Aggregation by Albiflorin, Aloeemodin and Neohesperidin and their Neuroprotective Effect on Primary Hippocampal Cells Against β-Amyloid Induced Toxicity. <i>Curr Alzheimer Res.</i>, 2015, 12, 424-33 8. Effects of aloeemodin on proliferation cycle and apoptotic of human stomach cancer cell line HGC-27. <i>J. Modern Oncol.</i>, 2008, 16, 919-21
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