

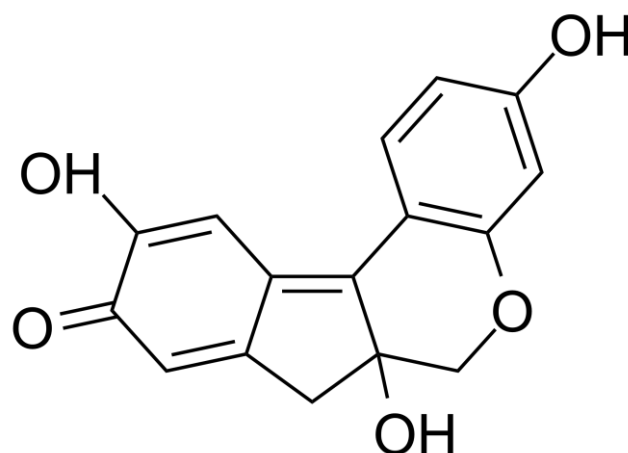
PRODUCT INFORMATION



Brazilein

Catalog No.: FLV-107-5

CAS Registry No.: 600-76-0
Molecular Formula: $C_{16}H_{12}O_5$
Synonyms: Benz[b]indeno[1,2-d]pyran-9(6H)-one, 6a,7-dihydro-3,6a,10-trihydroxy-
Molecular Weight: 284,26 g/mol
Purity: $\geq 80\%$ (HPLC)
Form: Powder
Source: *Caesalpinia sappan*



Description

Brazilein is a more stably oxidized in water-soluble environment form of brazilin capable of binding Fe^{2+} . It is a natural, biologically active compound from *Caesalpinia sappan* L., and has been shown to exhibit anti-inflammatory properties, antioxidant properties, and growth inhibitory activities on several cancer cells². Brazilein infiltrates into hemoglobin, causing a disruption of iron homeostasis that eventually induces pyknotic death as evidenced by holotomography and MIFC¹. When combined with doxorubicin as a co-chemotherapy agent, Brazilein increased doxorubicin's cytotoxic activity on MCF-7/DOX cells, decreasing its cell viability percentage significantly³.

References

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2. Liang CH, Chan LP, Chou TH, et al. 2013. Brazilein from *Caesalpinia sappan* L. Antioxidant Inhibits Adipocyte Differentiation and Induces Apoptosis through Caspase-3 Activity and Anthelmintic Activities against *Hymenolepis nana* and *Anisakis simplex*. *Evidence-based Complementary and Alternative Medicine*. 2013:1-14. doi:10.1155/2013/864892
3. Laksmani NPL, Susidarti RA, Meiyanto E. 2017. Brazilein increased cytotoxic activity of doxorubicin on MCF-7/DOX cells. *Indonesian Journal of Cancer Chemoprevention*. 2017;6(2):58. doi:10.14499/indonesianjcanchemoprev6iss2pp58-63

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