[Toutes les photos \(3\)](#)

Documents

[FDS](#)[COO/COA](#)[Fiche des caractéristiques](#)[Plus de documents »](#)**S7576** ▶ **Sigma-Aldrich.**

Shikonin

★★★★★ (0)

≥98% (HPLC)

Synonyme(s):

(±)-5,8-Dihydroxy-2-(1-hydroxy-4-methyl-3-pentenyl)-1,4-naphthoquinone, (±)-Alkannin, (±)-Shikalkin, (±)-Shikonin

Empirical Formula (Hill Notation):

C₁₆H₁₆O₅Numéro CAS: **54952-43-1**

Poids moléculaire: 288.30

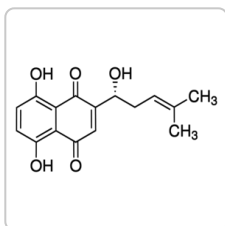
Numéro MDL: **MFCD00016668**ID de substance PubChem: **329824586**

NACRES: NA.25

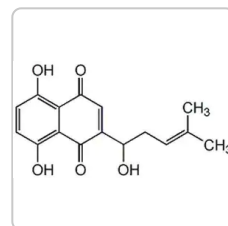
Référence	Conditionnement	Disponibilité	Prix	Quantité
S7576-10MG	10 MG	✓ Only 3 left in stock (more on the way) Détails...	409,00 €	− +
S7576-50MG	50 MG	✓ Only 3 left in stock (more on the way) Détails...	1380,00 €	− +

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PRODUITS RECOMMANDÉS

**PHL89791****Shikonin**

phyproof® Reference Substance



Sigma-Aldrich

565850**Shikonin - CAS 517-89-5 - Calbiochem**

A naphthoquinone found in the Chinese herb Shiunko.

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PROPRIÉTÉS

Niveau de qualité 200

Essai/Dosage $\geq 98\%$ (HPLC)

Forme powder or solid

Couleur red to brown

Solubilité methanol: 1 mg/mL

Temp. de stockage 2-8°C

SMILES string C/C(C)=C/CC(O)C1=CC(=O)c2c(O)ccc(O)c2C1=O

InChI	1S/C16H16O5/c1-8(2)3-4-10(17)9-7-13(20)14-11(18)5-6-12(19)15(14)16(9)21/h3,5-7,10,17-19H,4H2,1-2H3
InChI key	NEZONWMXZKDMKF-UHFFFAOYSA-N

DESCRIPTION

Description générale

Shikonin is a major phytochemical compound extracted from the roots of *Lithospermum erythrorhizon*. It is a natural anthraquinone derivative.

Application

Shikonin has been used:

- to enhance the anti-tumor activity of gefitinib on tyrosine kinase receptor epidermal growth factor receptor (EGFR) in wild-type lung cancer cells
- as an inhibitor of renal aerobic glycolysis and a potential
- as an anti-inflammatory agent to test its role to improve lipopolysaccharide (LPS)-induced cardiac dysfunction
- to stimulate bone marrow-derived macrophages (BMDMs) to test the effect of Interferon regulatory factor 1 on cell death

Conditionnement

10 mg in glass bottle

50 mg in poly bottle

Actions biochimiques/physiologiques

Naphthoquinone isolated from *Arnebia* sp. Used as an anti-inflammatory treatment in traditional chinese medicine (TCM). Inhibits chemokine receptor function and suppresses HIV-1.† Circumvents cancer drug resistance by induction of cell death through a necroptotic pathway.† Treatment of cancer cells with shikonin suppressed glycolysis via the inhibition of pyruvate kinase M2 (PKM2).

Shikonin is a potent anti-fungal agent against *C. albicans* biofilms. It displays anti-oxidant and chemotherapeutic properties on human glioma cells.

INFORMATIONS SUR LA SÉCURITÉ

Pictograms



GHS07,GHS09

Mention d'avertissement

Warning

Mentions de danger

H302 - H400

Conseils de prudence

P273 - P301 + P312 + P330

Classification des risques

Acute Tox. 4 Oral - Aquatic
Acute 1

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)**Rechercher**

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

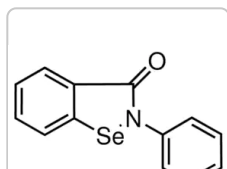
e.g. 023J5431

Comment saisir un numéro de lot (COO)**Rechercher**

Plus De Documents

[Structure Search](#)[FDS](#)

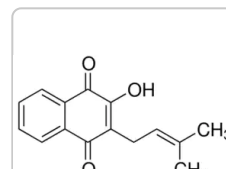
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

E3520**Ebselen**

cysteine modifier

<https://www.sigmaaldrich.com/FR/fr/product/sigma/s7576>**PHL89521****Lapachol**

phyproof® Reference Substance

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ARTICLES REVUS PAR DES PAIRS

Pharmacological properties and derivatives of shikonin-A review in recent years.

Chuanjie Guo et al.

Pharmacological research, 149, 104463-104463 (2019-09-26)

Shikonin is the major bioactive component extracted from the roots of *Lithospermum erythrorhizon* which is also known as "Zicao" in Traditional Chinese Medicine (TCM). Recent studies have shown that shikonin demonstrates various bioactivities related to the treatment of cancer, inflammation

Shikonin enhances sensitization of gefitinib against wild-type EGFR non-small cell lung cancer via inhibition PKM2/stat3/cyclinD1 signal pathway.

Jian-Cai Tang et al.

Life sciences, 204, 71-77 (2018-05-09)

Mutant EGFR Non-small cell lung cancer has benefit from gefitinib, but it has limited effect for wild-type EGFR tumors. Shikonin, a natural naphthoquinone isolated from a traditional Chinese medicine, the plant *Lithospermum erythrorhizon* (zicao), not only can inhibit the tumor

Novel multiple apoptotic mechanism of shikonin in human glioma cells.

Ching-Hsein Chen et al.

Annals of surgical oncology, 19(9), 3097-3106 (2012-03-27)

Shikonin is the main naphthoquinone compound of the root of *Lithospermum erythrorhizon*. Our previous study demonstrated that shikonin possesses anticancer activity in human hepatoma cells. However, the anticancer mechanism of shikonin in human glioma cells is unclear at present. In

In vitro and in vivo anticancer effects of *Lithospermum erythrorhizon* extract on B16F10 murine melanoma.

Seetharaman Rajasekar et al.*Journal of ethnopharmacology, 144(2), 335-345 (2012-09-22)*

Lithospermum erythrorhizon has long been used in traditional Asian medicine for the treatment of diseases including skin cancer. In this study, hexane extract from the roots of Lithospermum erythrorhizon (LEH) was chemically characterized and its anticancer activity was tested against

Shikonin, a Chinese plant-derived naphthoquinone, induces apoptosis in hepatocellular carcinoma cells through reactive oxygen species: A potential new treatment for hepatocellular carcinoma.

Ke Gong et al.*Free radical biology & medicine, 51(12), 2259-2271 (2011-10-21)*

Although shikonin, a naphthoquinone derivative, has showed anti-cancer activity, its precise molecular anti-tumor mechanism remains to be elucidated. In this study, we investigated the effects of shikonin on human hepatocellular carcinoma (HCC) in vitro and in vivo. Our results showed

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PROTOCOLES ET ARTICLES SCIENTIFIQUES

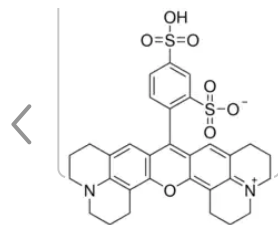
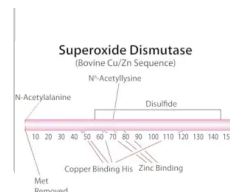
Articles

Oncogenes and Tumor Suppressors Reprogram Metabolism

We present an article about how proliferating cells require the biosynthesis of structural components for biomass production and for genomic replication.

PRODUITS CONSULTÉS RÉCEMMENT

Sigma-AldrichSigma-Aldrich

**S7635****Sulforhodamine 101**[Consulter le prix et la disponibilité](#)**S7571****Superoxide Dismutase from bovine erythrocytes**

lyophilized powder, ≥3,000 units/mg protein

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Évaluations

★★★★★

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