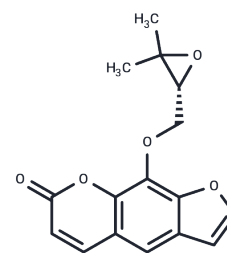


## Heraclenin

## Chemical Properties

CAS No. :	2880-49-1
Formula:	C <sub>16</sub> H <sub>14</sub> O <sub>5</sub>
Molecular Weight:	286.28
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Heraclenin has anticoagulant, and anti-inflammatory activities, it also has mutagenicity in Chlamydomonas reinhardtii. Heraclenin can induce apoptosis in Jurkat leukemia cells, it has a strong clastogenic effect. (+)-Heraclenin displays significant levels of antiplasmodial and moderate levels of antimicrobial activities.
Targets(IC50)	Anti-infection,Others,Immunology/Inflammation related
In vitro	METHODS AND RESULTS:Heraclenin, a furocoumarin with an epoxide group in its side chain, was analyzed to see if it induced structural chromosome aberrations and sister-chromatid exchanges (SCEs) in human lymphocytes in vitro. The results were compared directly with those of imperatorin, which differs from Heraclenin only in lacking an epoxide group. An equally strong clastogenic effect was found for both Heraclenin and imperatorin: the number of metaphases with breaks was increased in both cases by approximately a factor of 6. Heraclenin produced a considerable dose-dependent increase in the SCE rate, i.e., by about 60 induced SCEs/metaphase, whereas imperatorin induced only about 4 SCEs/metaphase. CONCLUSIONS: The results are discussed with respect to the occurrence of structural aberrations, which are primarily due to the basic furocoumarin structure itself, whereas the large increase in the SCE rate produced by Heraclenin is most probably significantly influenced by its epoxide group.

## Solubility Information

Solubility	DMSO: 25 mg/mL (87.33 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.4931 mL	17.4654 mL	34.9308 mL
5 mM	0.6986 mL	3.4931 mL	6.9862 mL
10 mM	0.3493 mL	1.7465 mL	3.4931 mL
50 mM	0.0699 mL	0.3493 mL	0.6986 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Chromosome-damaging effects of heraclenin in human lymphocytes in vitro. *Mutat Res.* 1986 Jan-Feb;169(1-2): 51-4.

Mutagenicity of a furocoumarin epoxide, heraclenin, in *Chlamydomonas reinhardtii*. *Mutat Res.* 1986 Jan-Feb;169 (1-2):47-50.

Microbial transformation of (+)-heraclenin by *Aspergillus niger* and evaluation of its antiplasmodial and antimicrobial activities. *Curr. Sci.*, 2011, 100(11):1706-11.

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