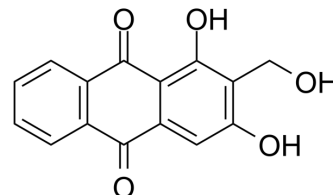


Lucidin

Cat. No.:	HY-15733		
CAS No.:	478-08-0		
Molecular Formula:	C ₁₅ H ₁₀ O ₅		
Molecular Weight:	270.24		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6.67 mg/mL (24.68 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.7004 mL	18.5021 mL	37.0041 mL
	5 mM	0.7401 mL	3.7004 mL	7.4008 mL
	10 mM	0.3700 mL	1.8502 mL	3.7004 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Lucidin (NSC 30546) is a natural component of *Rubia cordifolia*. Lucidin is mutagenic in bacteria and mammalian cells. IC50 Value: Target: in vitro: Lucidin was mutagenic in five *Salmonella typhimurium* strains without metabolic activation, but the mutagenicity was increased after addition of rat liver S9 mix. In V79 cells, lucidin was mutagenic at the hypoxanthine-guanine phosphoribosyl transferase gene locus and active at inducing DNA single-strand breaks and DNA-protein cross-links as assayed by the alkaline elution method. Lucidin also induced DNA repair synthesis in primary rat hepatocytes and transformed C3H/M2-mouse fibroblasts in culture [1]. HPLC analysis of 32P-labelled DNA adducts revealed a peak co-migrating with an adduct obtained after in vitro treatment of deoxyguanosine-3'-phosphate with lucidin [2]. in vivo: Dose-dependent increases in benign and malignant tumour formation were observed in the liver and kidneys of treated animals. 32P-post-labelling analysis showed an increase in the overall level of DNA adducts observed in the liver, kidney and colon of rats treated with 10% madder root in the diet for 2 weeks [2]. Toxicity: lucidin is mutagenic in bacteria and mammalian cells [2]. Clinical trial:

CUSTOMER VALIDATION

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- Food Chem Toxicol. 2022 Mar;161:112851.

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REFERENCES

- [1]. Westendorf J, et al. The genotoxicity of lucidin, a natural component of Rubia tinctorum L., and lucidinethylether, a component of ethanolic Rubia extracts. Cell Biol Toxicol. 1988 Jun;4(2):225-39.
- [2]. Westendorf J, et al. Carcinogenicity and DNA adduct formation observed in ACI rats after long-term treatment with madder root, Rubia tinctorum L. Carcinogenesis. 1998 Dec;19(12):2163-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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