trans-Trimethoxyresveratrol

Cat. No.: HY-N1408

CAS No.: 22255-22-7

Molecular Formula: $C_{17}H_{18}O_3$

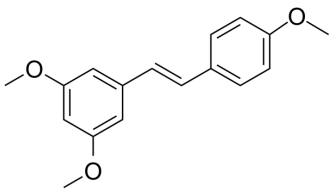
Molecular Weight: 270.32

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (184.97 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6993 mL	18.4966 mL	36.9932 mL
5 mM	0.7399 mL	3.6993 mL	7.3986 mL
10 mM	0.3699 mL	1.8497 mL	3.6993 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Trans-Trimethoxyresveratrol is a derivative of Resveratrol (RSV),and it may be a more potent anti-inflammatory, antiangiogenic and vascular-disrupting agent when compared with resveratrol.In vitro: The in vitro study of resveratrol and trans-Trimethoxyresveratrol showed rather weak cytotoxic effects on three cancer cell lines (HepG2, MCF-7, and MDA-MB-231), which contradicted a previous study reporting that resveratrol inhibited MCF-7 cells with an IC50 of about 10 μM. This discrepancy might be explained by the fact that the measurements were made 24 h after drug treatment, whereas the

measurements of the previous study were taken 6 days after. The fact that the cytotoxic effect of trans-Trimethoxyresveratrol was lower than that of resveratrol is surprising, because in many studies, trans-Trimethoxyresveratrol is the most active analogue of resveratrol , although resveratrol shows much stronger antioxidant effects than that of trans-Trimethoxyresveratrol.[1]In vivo: Zebrafish embryos offer great advantage over their adults as well as other in vivo models because of the external development and optical transparency during their first few days, making them invaluable in the inspection of developmental processes. These unique advantages can even be made more useful when specific cell types are labeled with fluorescent probes. Zebrafish embryo in vivo, suggests that trans-Trimethoxyresveratrol has both more potent antiangiogenic activity and more importantly, stronger specific cytotoxic effects on endothelial cells than does resveratrol.[1]

REFERENCES

[1]. Alex, D. et al. Resveratrol derivative, trans-3,5,4'-trimethoxystilbene, exerts antiangiogenic and vascular-disrupting effects in zebrafish through the downregulation of VEGFR2 and cell-cycle modulation. Journal of cellular biochemistry 109, 339-346, doi:

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