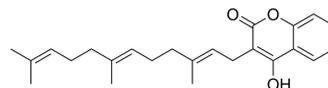


Ferulenol

Cat. No.:	HY-129605		
CAS No.:	6805-34-1		
Molecular Formula:	C ₂₄ H ₃₀ O ₃		
Molecular Weight:	366.49		
Target:	Mitochondrial Metabolism; Oxidative Phosphorylation		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Ferulenol, a sesquiterpene prenylated coumarin derivative, specifically inhibits succinate ubiquinone reductase at the level of the ubiquinonecycle. Ferulenol shows good antimycobacterial activity and haemorrhagic action ^{[1][2][3]} .
In Vitro	Ferulenol inhibits the oxidative phosphorylation process by interacting with adenine nucleotide translocase (ANT) and the complex II of the respiratory chain. At low concentrations, ferulenol inhibited ATP synthesis by inhibition of the adenine nucleotide translocase without limitation of mitochondrial respiration. At higher concentrations, ferulenol inhibited oxygen consumption. Ferulenol caused specific inhibition of succinate ubiquinone reductase without altering succinate dehydrogenase activity of the complex II ^[1] . Ferulenol inhibits succinate ubiquinone reductase (SQR) activity in a concentration-dependent manner and is as effective as thenoyltrifluoroacetone (TTFA) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Lahouel M, et al. Ferulenol specifically inhibits succinate ubiquinone reductase at the level of the ubiquinonecycle. *Biochem Biophys Res Commun*. 2007 Mar 30;355(1):252-7.
- [2]. Mamoci E, et al. Chemical composition and in vitro activity of plant extracts from *Ferula communis* and *Dittrichia viscosa* against postharvest fungi. *Molecules*. 2011 Mar 22;16(3):2609-25.
- [3]. DrissLamnaouer, et al. Ferulenol and ω-hydroxyferulenol, toxic coumarins from *Ferula communis* var. *genuine*. Volume 26, Issue 6, 1987, Pages 1613-1615.

Caution: Product has not been fully validated for medical applications. For research use only.

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