Xanthoxyletin

MedChemExpress

®

Cat. No.:	HY-N1065	
CAS No.:	84-99-1	`
Molecular Formula:	C ₁₅ H ₁₄ O ₄	
Molecular Weight:	258.27	
Target:	Apoptosis	
Pathway:	Apoptosis	0
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	

Product Data Sheet

BIOLOGICAL ACTIVITY				
Description	Xanthoxyletin is a coumarin that can be isolated from Genus Zanthoxylum and Clausena. Xanthoxyletin has antioxidant and anti-inflammatory activities. Xanthoxyletin shows cytotoxic effects to cancer cells, and induces apoptosis and necrosis. Xanthoxyletin can be used for the research of cancer and inflammation ^{[1][2]} .			
In Vitro	 Xanthoxyletin (1-500 μM; 30 min) inhibits DPPH radical with IC₅₀ values of 247.1 μM and 63.8 μg/mL, and also shows a ferric reducing antioxidant power (FRAP) value of 45.2 μM^[2]. Xanthoxyletin (10-500 μM; 24 h) shows cytotoxicity against HepG2, HCT116 and SK-LU-1 cancer cells with IC₅₀ values of 78.2, 79.8 and 94.4 μM, respectively^[2]. Xanthoxyletin (78 and 156 μM; 12 and 24 h) induces cell apoptosis and causes low necrosis^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Cytotoxicity Assay^[2] 			
	Cell Line:	HepG2, HCT116, SK-LU-1 and Vero cell lines		
	Concentration:	10-500 μM		
	Incubation Time:	24 hours		
	Result:	Exhibited cytotoxicity to HepG2, HCT116 and SK-LU-1, but showed inactive effect to Vero cells.		
	Apoptosis Analysis ^[2]			
	Cell Line:	HepG2 cell line ^[2]		
	Concentration:	78 and 156 μM		
	Incubation Time:	12 and 24 hours		
	Result:	Induced apoptosis percentage of 49.6% and 64.2% at the dose of 78 and 156 μM , respectively. Showed a better apoptosis inducing effect that cisplatin.		

REFERENCES

[1]. Sanna MD, et al. Histamine H4 receptor stimulation in the locus coeruleus attenuates neuropathic pain by promoting the coeruleospinal noradrenergic inhibitory pathway. Eur J Pharmacol. 2020 Feb 5;868:172859.

[2]. Jantamat P, et al. Cytotoxicity and Apoptosis Induction of Coumarins and Carbazole Alkaloids from Clausena harmandiana. Molecules. 2019 Sep 18;24(18):3385.

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

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA