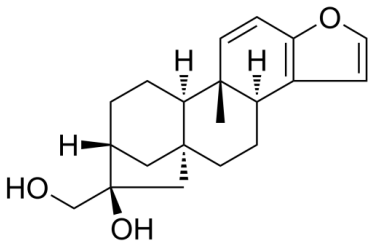
Data Sheet

Product Name:	Kahweol
Cat. No.:	CS-0032794
CAS No.:	6894-43-5
Molecular Formula:	$C_{20}H_{26}O_3$
Molecular Weight:	314.42
Target:	AMPK; Apoptosis
Pathway:	Apoptosis; Epigenetics; PI3K/Akt/mTOR
Solubility:	DMSO : ≥ 33.33 mg/mL (106.00 mM)



BIOLOGICAL ACTIVITY:

Kahweol is one of the consituents of the coffee from ***Coffea Arabica*** with anti-inflammatory anti-angiogenic, and anti-cancerous activities. Kahweol inhibits **adipogenesis** and increase glucose uptake by AMP-activated protein kinase (**AMPK**) activation. Kahweol induces **apoptosis**. IC50 & Target:AMPK; adipogenesis; apoptosis[1] ***In Vitro:*** Kahweol (20-40 μM; 24 hours) decreases TGF-β-induced CTGF protein expression in AML12 and LX2 cells[1].

Kahweol (20-40 μM; 1 hour) decreases TGF-β-induced phospho-Smad2/3 expression in AML12 cells, but does not affect expression in LX2 cells[1].

Kahweol (20-40 μM) significantly decreased TGF-β-stimulated phospho-ERK and JNK expression in primary hepatocytes only[1].

kahweol (0-25 μg/ml; 6-24 hours) increased the phosphorylation of AMPK and its downstream target Acetyl-CoA carboxylase (ACC) in a time-dependent manner in 3T3-L1 cells[2].

kahweol (0-25 μg/ml) significantly affects protein expression of PPARγ, C/EBPα, FABP4, and FASN, that regulate adipocyte differentiation and lipid metabolism[2].

References:

[1]. Seo HY, et al. Kahweol decreases hepatic fibrosis by inhibiting the expression of connective tissue growth factor via the transforming growth factor-beta signaling pathway. Oncotarget. 2017 Aug 1;8(50):87086-87094.

[2]. Baek JH, et al. Kahweol inhibits lipid accumulation and induces Glucose-uptake through activation of AMP-activated protein kinase (AMPK). BMB Rep. 2017 Nov;50(11):566-571.

CAIndexNames:

5a,8-Methano-5aH-cyclohepta[5,6]naphtho[2,1-b]furan-7-methanol, 3b,4,5,6,7,8,9,10,10a,10b-decahydro-7-hydroxy-10b-methyl-, (3bS,5aS,7R,8R,10aR,10bS)-

SMILES:

C[C@]12[C@@]3([H])[C@@]4(CC[C@]1([H])C5=C(OC=C5)C=C2)C[C@@]([C@](CO)(O)C4)([H])CC3

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

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com

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