Bavachalcone

Cat. No.: HY-N0231

CAS No.: 28448-85-3

Molecular Formula: $C_{20}H_{20}O_4$

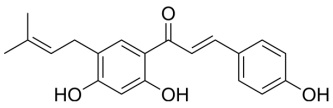
Molecular Weight: 324.37

Target: Bacterial; Antibiotic

Pathway: Anti-infection

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 : ≥ 34 mg/mL (104.82 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0829 mL	15.4145 mL	30.8290 mL
	5 mM	0.6166 mL	3.0829 mL	6.1658 mL
	10 mM	0.3083 mL	1.5414 mL	3.0829 mL

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

BIOLOGICAL ACTIVITY

Description

Bavachalcone is a major bioactive compounds isolated from Psoralea corylifolia L.; has been widely used as traditional Chinese medicine; antibiotic or anticancer agent.IC50 value:Target:Bavachalcone inhibited osteoclast formation from precursor cells with the IC(50) of approximately 1.5 microg ml(-1). The activation of MEK, ERK, and Akt by receptor activator of nuclear factor kappaB ligand (RANKL), the osteoclast differentiation factor, was prominently reduced in the presence of bavachalcone. The induction of c-Fos and NFATc1, key transcription factors for osteoclastogenesis, by RANKL was also suppressed by bavachalcone [1]. Bavachalcone exhibited a significant inhibitory effect on baculovirus-expressed BACE-1 in vitro [2]. Bavachalcone had stronger inhibition on UGT1A1 and UGT1A7 than corylin which did not inhibit UGT1A1, UGT1A3, UGT1A7, UGT1A8, UGT1A10, and UGT2B4. Data fitting using Dixon and Lineweaver-Burk plots demonstrated the noncompetitive inhibition of bavachalcone against UGT1A1 and UGT1A7-mediated 4-MU glucuronidation reaction. The values of inhibition kinetic parameters (Ki) were 5.41 μ M and 4.51μ M for UGT1A1 and UGT1A7, respectively [3].

CUSTOMER VALIDATION

- BMC Cancer. 2021 Jan 22;21(1):91.

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REFERENCES

[1]. Park CK, et al. Bavachalcone inhibits osteoclast differentiation through suppression of NFATc1 induction by RANKL. Biochem Pharmacol. 2008 Jun 1;75(11):2175-82.

[2]. Choi YH, et al. In vitro BACE-1 inhibitory phenolic components from the seeds of Psoralea corylifolia. Planta Med. 2008 Sep;74(11):1405-8.

[3]. Shan L, et al. Comparison of the Inhibitory Potential of Bavachalcone and Corylin against UDP-Glucuronosyltransferases. Evid Based Complement Alternat Med. 2014;2014:958937.

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