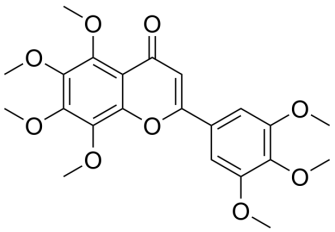
5'-Methoxynobiletin

Cat. No.:	HY-134602
CAS No.:	6965-36-2
Molecular Formula:	$C_{22}H_{24}O_9$
Molecular Weight:	432.42
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

5'-Methoxynobiletin is a potent and orally active antinociceptive and anti-inflammatory agent. 5'-Methoxynobiletin is a polymethoxyflavone, that can be isolated from A. conyzoides[1][2].

In Vivo

5'-Methoxynobiletin (5 mg/kg, IP) signifcantly decreases leukocyte counting, neutrophil infux and protein concentration in the exudate, as well as reduced the levels of several pro-infammatory mediators[2].
5'-Methoxynobiletin (100 mg/kg, Orally, once) shows anti-nociceptive and anti-inflammatory activity[2].
5'-Methoxynobiletin (10 mg/kg (IV), 50 mg/kg (oral), once) showed a low oral bioavailability in rats, around 8-11%[2].
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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Swiss mice (female)[2]
Dosage:	100 mg/kg
Administration:	Orally
Result:	Significantly reduced both phases of formalin-induced nocifensive behavior after 15, 30 and 60 min of oral administration, when compared to control groups. In the neurogenic phase, inhibitions of 43±3%, 68±6% and 53±5% of the nociceptive response were observed, while for the infammatory phase inhibitions were 70±8%, 91±3% and 85±3% after 15, 30 and 60 min of the oral administration of 5'-Methoxynobiletin, respectively.

Animal Model:	Wistar rats (male)[2]
Dosage:	10 mg/kg (IV), 50 mg/kg (oral)
Administration:	IV, oral, once (Pharmacokinetic Analysis)
Result:	Pharmacokinetic Parameters of 5'-Methoxynobiletin in male Wistar rats[1].

	IV (10 mg/kg)	IG (50 mg/kg)

λ (h^{-1})	0.55±0.03	0.29±0.2
T_{max} (h)		2.71±0.49
C_{max} (mg/L)		0.62±0.21
$AUC_{0-\infty}$ (mg·h/L)	8.19±4.1	3.65±0.8
$t_{1/2}$ elimination (h)	1.26±0.1	2.31±0.9
CL (L/h.kg)	1.22±0.26	13.68±0.29
Vd, ss (L/kg)	2.24±0.32	47.46±10.10
F (%)		8.67

REFERENCES

[1]. Faqueti LG, et al. Antinociceptive and anti-inflammatory activities of standardized extract of polymethoxyflavones from Ageratum conyzoides. J Ethnopharmacol. 2016 Dec 24;194:369-377.

[2]. Faqueti LG, et al. Preclinical Pharmacokinetic and Pharmacodynamic Investigation of 5'-Methoxynobiletin from Ageratum conyzoides: In vivo and In silico Approaches. Pharm Res. 2022 Sep;39(9):2135-2145.

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