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Produktinformation

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Isoprocurcumenol

Cat. No.: HY-113599

CAS No.: 102130-90-5

Molecular Formula: $C_{15}H_{22}O_2$

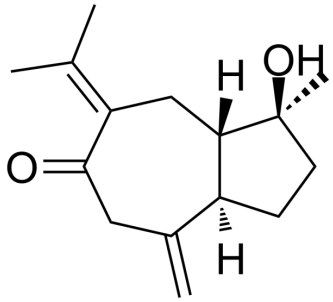
Molecular Weight: 234.33

Target: EGFR; ERK; Akt

Pathway: JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; MAPK/ERK Pathway; Stem Cell/Wnt; PI3K/Akt/mTOR

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 2.4 mg/mL (10.24 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.2675 mL	21.3374 mL	42.6749 mL
	5 mM	0.8535 mL	4.2675 mL	8.5350 mL
	10 mM	0.4267 mL	2.1337 mL	4.2675 mL

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

BIOLOGICAL ACTIVITY

Description

Isoprocurcumenol is a guaiane type sesquiterpene, that can be isolated from Curcuma comosa. Isoprocurcumenol can activate EGFR signaling. Isoprocurcumenol increases the phosphorylation of ERK and AKT. Isoprocurcumenol promotes the proliferation of keratinocytes[1][2][3].

IC_{50} & Target		
	ERK	Akt

In Vitro

Isoprocurcumenol (10 μM, 0-1 h) increases the phosphorylation of ERK and AKT[3].
Isoprocurcumenol (0-200 μM, 24 or 48 h) induces the proliferation of keratinocytes HaCaT cells[3].
Isoprocurcumenol (1 μM, 1 h) increases the expression of genes related to cell growth and proliferation, such as c-fos, c-jun, c-myc, and egr-1, through activation of the EGFR signaling pathway[3].
Isoprocurcumenol induces cell recovery and wound healing[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[3]

Cell Line:	HaCaT cells (human keratinocyte cell)
Concentration:	10 μM
Incubation Time:	10, 30, or 60 min
Result:	Induced the phosphorylation of ERK and AKT after 10 min and this was sustained for 1 h.

Cell Proliferation Assay[3]

Cell Line:	HaCaT cells (human keratinocyte cell)
Concentration:	0 nM, 1 nM, 10 nM, 100 nM, 1 μM, 10 μM, 25 μM, 50 μM, 100 μM, or 200 μM
Incubation Time:	24 or 48 h
Result:	Showed a significant increase in the proliferation of cells at most of the Isoprocurcumenol concentrations, starting at 10 nM.

RT-PCR[3]

Cell Line:	HaCaT cells (human keratinocyte cell)
Concentration:	1 μM
Incubation Time:	1 h
Result:	Increased the expression of genes related to cell growth and proliferation, such as c-myc, c-jun, c-fos, and egr-1.

REFERENCES

[1]. Qu Y, et al. Sesquiterpenes from Curcuma comosa. J Nat Med. 2009 Jan;63(1):102-4.

[2]. Anuchapreeda S, et al. Cytotoxicity and inhibition of leukemic cell proliferation by sesquiterpenes from rhizomes of Mah-Lueang (Curcuma cf. viridiflora Roxb.). Bioorg Med Chem Lett. 2018 Feb 1;28(3):410-414.

[3]. Kwon PK, et al. Isoprocurcumenol Supports Keratinocyte Growth and Survival through Epidermal Growth Factor Receptor Activation. Int J Mol Sci. 2021 Nov 22;22(22):12579.

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