(Rac)-Idroxioleic acid

Cat. No.: HY-129467

CAS No.: 56472-29-8

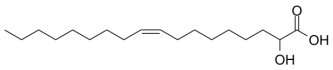
Molecular Formula: $C_{18}H_{34}O_3$

Molecular Weight: 298.46

Target: Apoptosis

Pathway: Apoptosis

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (335.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3505 mL	16.7527 mL	33.5053 mL
	5 mM	0.6701 mL	3.3505 mL	6.7011 mL
	10 mM	0.3351 mL	1.6753 mL	3.3505 mL

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

BIOLOGICAL ACTIVITY

Description

(Rac)-Idroxioleic acid (2-Hydroxyoleic acid) is a synthetic oleic acid (OA) derivative that binds to the plasma membrane and alters lipid organization. (Rac)-Idroxioleic acid has anti-tumor effect[1].

In Vitro

(Rac)-Idroxioleic acid (25-75 μM; 72 hours) impairs Jurkat cell growth in a time- and concentration-dependent manner, with an IC_{50} of ~40 μM[1].
(Rac)-Idroxioleic acid (25-50 μM; 72 hours) also induces a marked and concentration-dependent increase in the proteolytic cleavage of PARP, a molecular marker of apoptosis[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Jurkat cells
Concentration:	25 μM, 50 μM, 75 μM
Incubation Time:	24 hours, 48 hours, 72 hours
Result:	Impaired Jurkat cell growth in a time- and concentration-dependent manner.

Western Blot Analysis[1]

Cell Line:	Jurkat cells
Concentration:	25 μM, 50 μM
Incubation Time:	72 hours
Result:	Induced a marked and concentration-dependent increase in the proteolytic cleavage of PARP.

In Vivo

(Rac)-Idroxioleic acid markedly and significantly inhibits tumour growth in nude mice infected with Jurkat cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	6-week-old nude male mice (Jurkat cells xenograft model)[1]
Dosage:	600 mg/kg
Administration:	Oral administration; daily; for 21 days
Result:	Markedly and significantly inhibited tumour growth.

REFERENCES

[1]. Llado V, et al. Minerval induces apoptosis in Jurkat and other cancer cells. J Cell Mol Med. 2010 Mar;14(3):659-70.

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