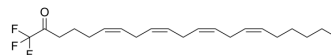


## AACOFC3

Cat. No.:	HY-108611
CAS No.:	149301-79-1
Molecular Formula:	C <sub>21</sub> H <sub>31</sub> F <sub>3</sub> O
Molecular Weight:	356.47
Target:	Phospholipase
Pathway:	Metabolic Enzyme/Protease
Storage:	Solution, -20°C, 2 years



### BIOLOGICAL ACTIVITY

<b>Description</b>	AACOFC3 (Arachidonyl trifluoromethyl ketone) is a cell-permeant trifluoromethyl ketone analog of arachidonic acid. AACOCF3 is a potent and selective slow binding inhibitor of the 85-kDa cytosolic phospholipase A2 (cPLA2). AACOCF3 blocks production of arachidonate and 12-hydroxyeicosatetraenoic acid by calcium ionophore-challenged platelets. AACOCF3 inhibits glucose-induced insulin secretion from isolated rat islets. AACOCF3 has the potential for the research of cardiovascular disease <sup>[1][2][3]</sup> .
<b>In Vitro</b>	AACOFC3 inhibits the release of arachidonic acid from calcium ionophore-challenged U937 cells (IC <sub>50</sub> = 8 μM, 2 x 10 <sup>6</sup> cells ml <sup>-1</sup> ) and from platelets (IC <sub>50</sub> = 2 μM, 4 x 10 <sup>7</sup> cells ml <sup>-1</sup> ) <sup>[1]</sup> . AACOCF3 (10 μM) suppresses phosphate-induced calcification and osteogenic/chondrogenic signaling in HAoSMCs. AACOCF3 significantly inhibits both basal and Pi-induced release of arachidonic acid, the product of PLA2 activity <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	AACOFC3 (10 mg/kg; gavage; 5 days a week; ApoE <sup>-/-</sup> mice (6-week-old males) were fed a high-cholesterol diet) significantly reduces type III collagen plaque expression but had no significant influence on total collagen accumulation <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Int Immunopharmacol. 2023 Feb 8;116:109637.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

- [1]. Riendeau D, et al. Arachidonyl trifluoromethyl ketone, a potent inhibitor of 85-kDa phospholipase A2, blocks production of arachidonate and 12-hydroxyeicosatetraenoic acid by calcium ionophore-challenged platelets. J Biol Chem. 1994;269(22):15619-15624.
- [2]. Schanstra JP, et al. Systems biology identifies cytosolic PLA2 as a target in vascular calcification treatment. JCI Insight. 2019;4(10):e125638. Published 2019 May 16.
- [3]. Loweth AC, et al. A specific inhibitor of cytosolic phospholipase A2 activity, AACOCF3, inhibits glucose-induced insulin secretion from isolated rat islets. Biochem

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

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