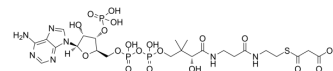


Malonyl CoA

Cat. No.:	HY-115899
CAS No.:	524-14-1
Molecular Formula:	$C_{24}H_{38}N_7O_{19}P_3S$
Molecular Weight:	853.58
Target:	Endogenous Metabolite; Mitochondrial Metabolism
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Malonyl CoA is a substrate for fatty acid biosynthesis and an inhibitor of fatty acid oxidation. Malonyl CoA is also a reversible inhibitor of mitochondrial carnitine palmitoyltransferase (CPT) 1 ^{[1][2]} .
IC ₅₀ & Target	Human Endogenous Metabolite
In Vitro	Malonyl CoA (20 μM, 6 min) decreases CPT1 activity by 75% in MCF-7 cells ^[2] . Malonyl CoA (0-3 μM) inhibits CPT1 activity in liver mitochondria from fed virgin female rats ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Folmes CD, et L. Role of malonyl-CoA in heart disease and the hypothalamic control of obesity. Cardiovasc Res. 2007 Jan 15;73(2):278-87.
- [2]. Thupari JN, et al. Fatty acid synthase inhibition in human breast cancer cells leads to malonyl-CoA-induced inhibition of fatty acid oxidation and cytotoxicity. Biochem Biophys Res Commun. 2001 Jul 13;285(2):217-23.
- [3]. Zammit VA. Increased sensitivity of carnitine palmitoyltransferase I activity to malonyl-CoA inhibition after preincubation of intact rat liver mitochondria with micromolar concentrations of malonyl-CoA in vitro. Biochem J. 1983 Mar 15;210(3):953-6.

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

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