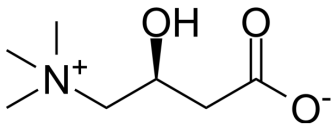
D-Carnitine

Cat. No.:	HY-W012550
CAS No.:	541-14-0
Molecular Formula:	$C_7H_{15}NO_3$
Molecular Weight:	161.2
Target:	Parasite
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	D-Carnitine is an orally available isomer of the essential nutrient L-carnitine that promotes long-chain fatty acid transport into the mitochondrial matrix for beta-oxidation. D-Carnitine has antiparasitic activity[1][2][3].
In Vitro	D-Carnitine (0.5 μM) can inhibit the uptake of L-carnitine by renal brush marginal membrane vesicles in rats[1]. D-Carnitine (0.5, 1 μM) inhibits the uptake of L-carnitine by primary human limbal (HCLE) and conjunctival epithelium (HCjE) cells[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	D-Carnitine (75-300 mg/kg/day, orally) inhibits parasite activity in rats and mice infected with trypanosoma[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Manganaro M, et al. Activity of D-carnitine and its derivatives on Trypanosoma infections in rats and mice. Parasite. 2003 Jun;10(2):147-51.

[2]. Stieger B, et al. Characterization of L-carnitine transport by rat kidney brush-border-membrane vesicles. Biochem J. 1995 Jul 15;309 (Pt 2)(Pt 2):643-7.

[3]. Xu S, et al. Transport of L-carnitine in human corneal and conjunctival epithelial cells. Mol Vis. 2010 Sep 4;16:1823-31.

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