

UK-5099

Catalog No: tcsc1048



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

56396-35-1

Formula:

$C_{18}H_{12}N_2O_2$

Pathway:

Membrane Transporter/Ion Channel

Target:

Monocarboxylate Transporter

Purity / Grade:

>98%

Solubility:

H2O :

Alternative Names:

PF-1005023

Observed Molecular Weight:

288.3

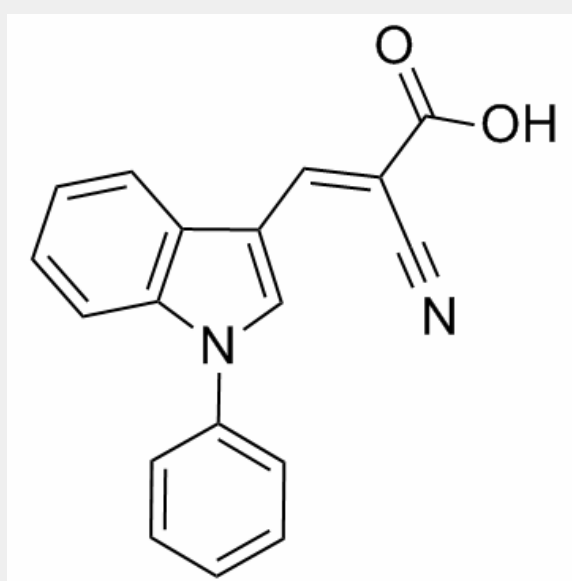
Product Description

UK-5099 is a potent inhibitor of the mitochondrial pyruvate carrier (**MPC**). UK-5099 inhibits pyruvate-dependent O₂ consumption with an **IC₅₀** of 50 nM.

IC50 & Target: IC50: 50 nM (MPC)^[1]

In Vitro: The trypanosomal pyruvate carrier is found to be rather insensitive to inhibition by alpha-cyano-4-hydroxycinnamate (K_i = 17 mM) but can be completely blocked by UK-5099 (K_i = 49 μM)^[2]. UK-5099 also inhibits the monocarboxylate transporter (MCT)^[3]. UK5099 significantly inhibits the glucose-stimulated rise in oxygen consumption in a dose-dependent manner and at 150 μM reduced oxygen consumption below basal levels. UK5099 reduces ATP levels and increases ADP and AMP levels in 832/13 cells^[4]. The UK5099 treated cells show significantly higher proportion of side population fraction and express higher levels of stemness markers Oct3/4 and Nanog. UK5099 application may be an ideal model for Warburg effect studies^[5].

In Vivo: The MPC inhibitor UK5099 increases the glucose excursion seen during an intraperitoneal glucose tolerance test in C57BLK mice^[4].



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