Web: www.taiclone.com
Tel: +886-2-2735-9682
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Dorsomorphin (dihydrochloride)

Catalog No: tcsc2482

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1219168-18-9

Formula:
$C_{24}H_{27}Cl_2N_5O$

Pathway:
Autophagy;Epigenetics;PI3K/Akt/mTOR

Target:
Autophagy;AMPK;AMPK

Purity / Grade:
>98%

Solubility:
DMSO : 5.2 mg/mL (11.01 mM; Need ultrasonic); H2O : ≥ 50 mg/mL (105.84 mM)

Alternative Names:
BML-275 dihydrochloride;Compound C dihydrochloride

Observed Molecular Weight:
472.41

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Product Description

Dorsomorphin dihydrochloride is a potent and selective **AMPK** inhibitor, that is competitive with ATP, with $\mathbf{K_i}$ of 109±16 nM in the absence of AMP.

IC50 & Target: Ki: 109±16 nM (AMPK)[1]

In Vitro: HT1080 cells are treated with 10 μM Dorsomorphin for 2 h under 2DG stress. Immunoblot analysis reveals that phosphorylation levels of the catalytic α subunit of AMPK are increased by exposure of HT1080 cells to 2DG, whereas both basal and 2DG-induced phosphorylation levels are clearly reduced when Dorsomorphin is added. Measurements of cellular kinase activity using an ELISA-based assay system confirmed that Dorsomorphin does reduce the endogenous AMPK activity regardless of cell culture conditions[2].

In Vivo: Administration of Dorsomorphin over 24 h leads to a 60% increase in total serum iron concentrations. Dorsomorphin treatment is therefore effective in reducing basal levels of hepcidin expression and increasing serum iron concentrations in adult mice[3].