

Store at
-20°C
#60887**Dorsomorphin (Compound C)**

5 mg



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Background

Dorsomorphin (Compound C) is a potent and reversible AMP-activated protein kinase (AMPK) inhibitor that competes with ATP in the absence of AMP with a K_i value of 109 nM (1). This small compound is selective, displaying no significant inhibition of other kinases inclusive of ZAPK, SYK, PKC θ , PKA, and JAK3 (1). Research has shown that Dorsomorphin (Compound C) inhibits tumor cell proliferation and induces apoptosis through mechanisms independent of the AMPK pathway (2). This compound inhibits the effects that AICAR and metformin have on inactivating acetyl-CoA carboxylase (ACC) and selectively inhibits the BMP type I receptors ALK2, ALK3, and ALK6 (1,3).

Molecular Formula

$C_{24}H_{25}N_5O$

Molecular Weight

399.5 g/mol

Purity

>98%

CAS

866405-64-3

Solubility

Soluble in DMSO at 4 mg/ml with warming.

Storage

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

Dorsomorphin (Compound C) is supplied as a lyophilized powder. For a 10 mM stock, reconstitute 5 mg of powder in 1.25 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Zhou, G. et al. (2001) *J Clin Invest* 108, 1167-74.
2. Liu, X. et al. (2014) *Mol Cancer Ther* 13, 596-605.
3. Yu, P.B. et al. (2008) *Nat Chem Biol* 4, 33-41.

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