

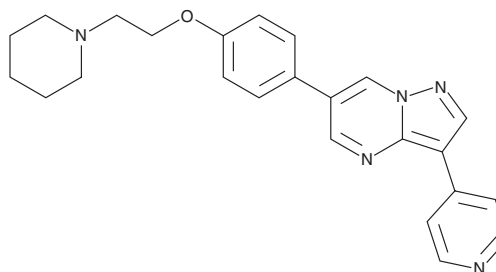
PRODUCT INFORMATION



Dorsomorphin

Item No. 11967

CAS Registry No.: 866405-64-3
Formal Name: 6-[4-[2-(1-piperidinyl)ethoxy]phenyl]-3-(4-pyridinyl)-pyrazolo[1,5-a]pyrimidine
Synonyms: BML-275, Compound C
MF: C₂₄H₂₅N₅O
FW: 399.5
Purity: ≥98%
UV/Vis.: λ_{max}: 204, 301 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dorsomorphin is supplied as a crystalline solid. A stock solution may be made by dissolving the dorsomorphin in the solvent of choice, which should be purged with an inert gas. Dorsomorphin is soluble in organic solvents such as DMSO (sonicated) and dimethyl formamide. The solubility of dorsomorphin in these solvents is approximately 1 and 2.5 mg/ml, respectively.

Description

Dorsomorphin is a potent, reversible inhibitor of AMPK ($K_i = 109$ nM) that does not exhibit significant activity on structurally related kinases, including ZAPK, SYK, PKC θ , PKA, and JAK3.¹ Dorsomorphin can also dose-dependently inhibit the bone morphogenetic protein type 1 receptors ACTR-I (ALK2), BMPR-IA (ALK3), and BMPR-IB (ALK6).² Independent of AMPK inhibition, dorsomorphin at 10 μ M has additionally been shown to downregulate the Akt/mTOR pathway to induce autophagy in U251 human glioma cells.³

References

1. Zhou, G., Myers, R., Li, Y., *et al.* Role of AMP-activated protein kinase in mechanism of metformin action. *J. Clin. Invest.* **108**(8), 1167-1174 (2001).
2. Yu, P.B., Hong, C.C., Sachidanandan, C., *et al.* Dorsomorphin inhibits BMP signals required for embryogenesis and iron metabolism. *Nat. Chem. Biol.* **4**(1), 33-41 (2008).
3. Vucicevic, L., Misirkic, M., Janjetovic, K., *et al.* Compound C induces protective autophagy in cancer cells through AMPK inhibition-independent blockade of Akt/mTOR pathway. *Autophagy* **7**(1), 40-50 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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