

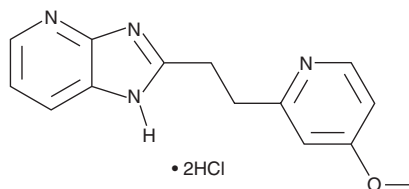
PRODUCT INFORMATION



BYK 191023 (hydrochloride)

Item No. 13177

CAS Registry No.: 1216722-25-6
Formal Name: 2-[2-(4-methoxy-2-pyridinyl)ethyl]-3H-imidazo[4,5-b]pyridine, dihydrochloride
MF: C₁₄H₁₄N₄O • 2HCl
FW: 327.2
Purity: ≥98%
Supplied as: A 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

BYK 191023 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the BYK 191023 (hydrochloride) in water. The solubility of BYK 191023 (hydrochloride) in water is approximately 100 mM. We do not recommend storing the aqueous solution for more than one day.

Description

BYK 191023 is an L-arginine competitive and selective inhibitor of inducible nitric oxide synthase (iNOS) with IC₅₀ values of 0.086, 17, and 162 μM for human recombinant iNOS, nNOS, and eNOS, respectively.¹ It also inhibits murine recombinant iNOS (IC₅₀ = 95 nM). BYK 191023 inhibits iNOS-induced nitrite generation in RMC, RAW, and HEK293 cells (IC₅₀s = 33, 3.1, and 13 μM, respectively). *In vivo*, BYK 191023 suppresses LPS-induced increases in plasma nitrate and nitrite levels in rats (ED₅₀ = 14.9 μmol/kg per hour).² It prevents development of delayed hypotension in a rat model of LPS-induced endotoxemia when administered at a dose of 50 μmol/kg per hour. BYK 191023 also increases mean arterial pressure and renal blood flow in a sheep model of septic shock.³

References

1. Strub, A., Ulrich, W.R., Hesslinger, C., *et al.* The novel imidazopyridine 2-[2-(4-methoxy-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridine (BYK191023) is a highly selective inhibitor of the inducible nitric-oxide synthase. *Mol. Pharmacol.* **69(1)**, 328-337 (2006).
2. Lehner, M.D., Marx, D., Boer, R., *et al.* *In vivo* characterization of the novel imidazopyridine BYK191023 [2-[2-(4-methoxy-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridine], a potent and highly selective inhibitor of inducible nitric-oxide synthase. *J. Pharmacol. Exp. Ther.* **317(1)**, 181-187 (2006).
3. Su, F., Huang, H., Akieda, K., *et al.* Effects of a selective iNOS inhibitor versus norepinephrine in the treatment of septic shock. *Shock* **34(3)**, 243-249 (2010).

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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