

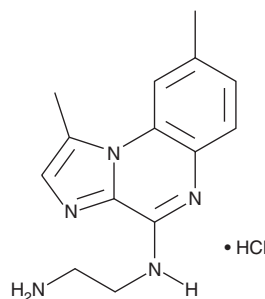
PRODUCT INFORMATION



BMS 345541 (hydrochloride)

Item No. 16667

CAS Registry No.: 547757-23-3
Formal Name: N¹-(1,8-dimethylimidazo[1,2-a]quinoxalin-4-yl)-1,2-ethanediamine, monohydrochloride
Synonym: IKK Inhibitor III
MF: C₁₄H₁₇N₅ • HCl
FW: 291.8
Purity: ≥98%
UV/Vis.: λ_{max}: 211, 226, 241, 261, 271, 291, 303, 316, 330 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

BMS 345541 (hydrochloride) is supplied as a crystalline solid. Aqueous solutions of BMS 345541 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of BMS 345541 (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

BMS 345541 is a cell permeable inhibitor of the IκB kinases IKKα and IKKβ (IC₅₀s = 4 and 0.3 μM).¹ It is without effect against a panel of other serine/threonine and tyrosine kinases at 100 μM.¹ BMS 345541 inhibits signaling through nuclear factor-κB (NF-κB) both in cells and *in vivo*, showing excellent pharmacokinetics in mice.¹ It blocks joint inflammation and damage in collagen-induced arthritis in mice and induces apoptosis in melanoma cells both *in vitro* and *in vivo*.^{2,3} BMS 345541 is used to explore novel roles for IKK phosphorylation and NF-κB signaling.^{4,5}

References

1. Burke, J.R., Pattoli, M.A., Gregor, K.R., *et al.* BMS-345541 is a highly selective inhibitor of IκB kinase that binds at an allosteric site of the enzyme and blocks NF-κB-dependent transcription in mice. *J. Biol. Chem.* **278**(3), 1450-1456 (2003).
2. McIntyre, K.W., Shuster, D.J., Gillooly, K.M., *et al.* A highly selective inhibitor of IκB kinase, BMS-345541, blocks both joint inflammation and destruction in collagen-induced arthritis in mice. *Arthritis Rheum.* **48**(9), 2652-2659 (2003).
3. Yang, J., Amiri, K.I., Burke, J.R., *et al.* BMS-345541 targets inhibitor of κB kinase and induces apoptosis in melanoma: Involvement of nuclear factor κB and mitochondria pathways. *Clin. Cancer Res.* **12**(3 Pt 1), 950-960 (2006).
4. Karim, Z.A., Zhang, J., Bangerjee, M., *et al.* IκB kinase phosphorylation of SNAP-23 controls platelet secretion. *Blood* **121**(22), 4567-4574 (2013).
5. Wen, L., Zhu, M., Madigan, M.C., *et al.* Immunomodulatory effects of bone marrow-derived mesenchymal stem cells on pro-inflammatory cytokine-stimulated human corneal epithelial cells. *PLoS One* **9**(7), 1-12 (2014).

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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