

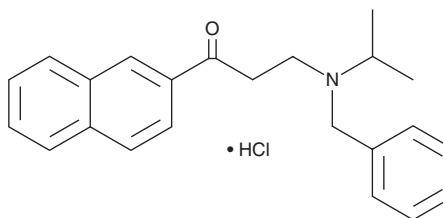
PRODUCT INFORMATION



ZM 39923 (hydrochloride)

Item No. 16729

CAS Registry No.: 1021868-92-7
Formal Name: 3-[(1-methylethyl)(phenylmethyl)amino]-1-(2-naphthalenyl)-1-propanone, monohydrochloride
Synonyms: JAK3 Inhibitor IV, Janus-Associated Kinase 3 Inhibitor IV
MF: C₂₃H₂₅NO • HCl
FW: 367.9
Purity: ≥98%
UV/Vis.: λ_{max}: 249, 285, 336, 346 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

ZM 39923 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the ZM 39923 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. ZM 39923 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ZM 39923 (hydrochloride) in these solvents is approximately 2, 5, and 10 mg/ml, respectively.

ZM 39923 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ZM 39923 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ZM 39923 (hydrochloride) has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ZM 39923 is an inhibitor of JAK3 (IC₅₀ = 79 nM) that less potently inhibits epidermal growth factor receptor, JAK1, and cyclin-dependent kinase 4 (IC₅₀s = 2.4, 40, and 10 μM, respectively).¹ In the absence of the reducing agent dithiothreitol, ZM 39923 also inhibits human tissue transglutaminase 2 (TGM2) and the transglutaminase Factor XIIIa (IC₅₀s = 10 and 25 nM, respectively).² It breaks down in neutral buffer to form ZM 449829, which is also an inhibitor of JAK3, TGM2, and Factor XIIIa.^{1,2}

References

1. Brown, G.R., Bamford, A.M., Bowyer, J., *et al.* Naphthyl ketones: A new class of Janus kinase 3 inhibitors. *Bioorg. Med. Chem. Lett.* **10(6)**, 575-579 (2000).
2. Lai, T.-S., Liu, Y., Tucker, T., *et al.* Identification of chemical inhibitors to human tissue transglutaminase by screening existing drug libraries. *Chem. Biol.* **15(9)**, 969-978 (2008).

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.

WARRANTY AND LIMITATION OF REMEDY

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