

Product Information



GSK-J2 (sodium salt)

Item No. 12056

Formal Name: 3-((6-(4,5-dihydro-1H-benzo[d]azepin-3(2H)-yl)-2-(pyridin-3-yl)pyrimidin-4-yl)amino)propanoic acid, monosodium salt

MF: C₂₂H₂₃N₅O₂ • Na

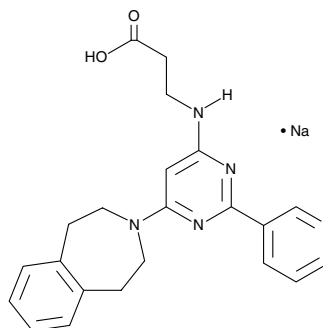
FW: 412.4

Purity: ≥90%

Stability: ≥2 years at -20°C

Supplied as: A crystalline solid

UV/Vis.: λ_{max}: 242 nm



Laboratory Procedures

For long term storage, we suggest that GSK-J2 (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

GSK-J2 (sodium salt) is supplied as a crystalline solid. GSK-J2 (sodium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, and also sparingly soluble in aqueous solutions. We do not recommend storing the aqueous solution for more than one day.

The histone H3 lysine 27 (H3K27) demethylase JMJD3 plays important roles in the transcriptional regulation of cell differentiation, development, the inflammatory response, and cancer.^{1,2} GSK-J1 (Item No. 12054) is a potent H3K27 histone demethylase inhibitor that is highly selective for human JMJD3 (IC₅₀ = 60 nM *in vitro*).³ GSK-J2 is a pyridine regio-isomer of GSK-J1 which poorly inhibits JMJD3 (IC₅₀ > 100 μM), making it an appropriate negative control for *in vitro* studies involving GSK-J1.³ For *in vivo* research, cell-permeable prodrug forms of GSK-J1 and GSK-J2 are available as GSK-J4 (Item No. 12073) and GSK-J5 (Item No. 12074), respectively. See the Structural Genomics Consortium (SGC) website for more information.

References

1. Agger, K., Cloos, P.A.C., Christensen, J., *et al.* UTX and JMJD3 are histone H3K27 demethylases involved in HOX gene regulation and development. *Nat. Lett.* **449(7163)**, 731-4 (2011).
2. Hübner, M.R. and Spector, D.L. Role of H3K27 demethylases JMJD3 and UTX in transcriptional regulation. *Cold Spring Harb. Symp. Quant. Biol.* (2011).
3. Kruidenier, L., Chung, C.-W., Cheng, Z., *et al.* A selective jumoni H3K27 demethylase inhibitor modulates the proinflammatory macrophage response. *Nature* **488**, 404-408 (2012).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/12056

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy located on our website and in our catalog**.

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