

PRODUCT INFORMATION



KB-0742 (hydrochloride)

Item No. 39772

Formal Name: (1S,3S)-N¹-[5-(1-ethylpropyl)pyrazolo[1,5-a]pyrimidin-7-yl]-1,3-cyclopentanediamine, monohydrochloride

MF: C₁₆H₂₅N₅ • HCl

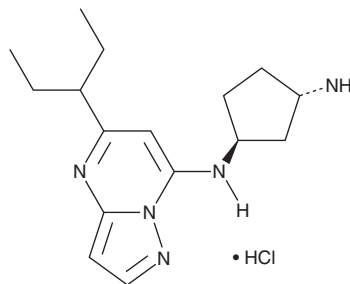
FW: 323.9

Purity: ≥95%

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

KB-0742 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the KB-0742 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. KB-0742 (hydrochloride) is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of KB-0742 (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. KB-0742 (hydrochloride) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

KB-0742 is an inhibitor of cyclin-dependent kinase 9 (Cdk9; IC₅₀ = 6 nM).¹ It is selective for Cdk9 over Cdk1-8 (IC₅₀s = 397->10,000 nM) and Cdk12-19 (IC₅₀s = 372->10,000 nM). KB-0742 (0.64-7.73 μM) induces cell cycle arrest at the G₁ phase and apoptosis in BT-20, BT-549, MDA-MB-231, MT-3, and Hs 578T triple-negative breast cancer (TNBC) cells. *In vivo*, KB-0742 (60 mg/kg) reduces tumor volume in the MYC-amplified CTG-0437 patient-derived xenograft (PDX) mouse model of TNBC.

Reference

1. Freeman, D.B., Hopkins, T.D., Mikochik, P.J., et al. Discovery of KB-0742, a potent, selective, orally bioavailable small molecule inhibitor of CDK9 for MYC-dependent cancers. *J. Med. Chem.* **66**(23), 15629-15647 (2023).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 01/02/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM