

PRODUCT INFORMATION



SBE 13 (hydrochloride)

Item No. 21241

CAS Registry No.: 1052532-15-6
Formal Name: N-[[4-[(6-chloro-3-pyridinyl)methoxy]-3-methoxyphenyl]methyl]-3,4-dimethoxy-benzeneethanamine, monohydrochloride

MF: C₂₄H₂₇ClN₂O₄ • HCl
FW: 479.4

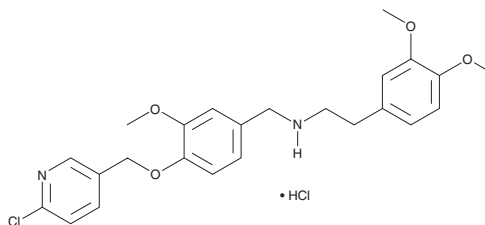
Purity: ≥98%

UV/Vis.: λ_{max}: 275 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

SBE 13 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the SBE 13 (hydrochloride) in the solvent of choice. SBE 13 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of SBE 13 (hydrochloride) in these solvents is approximately 1 and 10 mg/ml, respectively.

SBE 13 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SBE 13 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SBE 13 (hydrochloride) has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SBE 13 is a potent inhibitor of polo-like kinase 1 (Plk1) (IC₅₀ = 0.2 nM) that targets the inactive conformation of the enzyme^{1,2}. It exhibits no activity against aurora A kinase and less effectively inhibits Plk2 (IC₅₀ > 66 μM) and Plk3 (IC₅₀ = 875 nM). SBE 13 induces cell cycle arrest, reduces cell proliferation (EC₅₀ = 5-60 μM), and induces apoptosis in a broad range of human cancer cell lines.^{2,3}

References

1. Keppner, S., Proschak, E., Schneider, G., *et al.* Identification and validation of a potent type II inhibitor of inactive polo-like kinase 1. *Chem. Med. Chem.* **4**(11), 1806-1809 (2009).
2. Keppner, S., Proschak, E., Kaufmann, M.T., *et al.* Biological impact of freezing Plk1 in its inactive conformation in cancer cells. *Cell Cycle* **9**(4), 761-773 (2010).
3. Keppner, S., Proschak, E., Schneider, A., *et al.* Fate of primary cells at the G₁/S boundary after polo-like kinase 1 inhibition by SBE13. *Cell Cycle* **10**(4), 708-720 (2011).

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, 12/22/2022

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