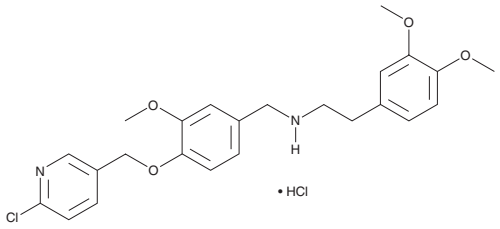
PRODUCT INFORMATION

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:	$C_{24}H_{27}ClN_2O_4 \bullet HCl$
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) (IC_{50} = 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 (IC_{50} > 66 µM) and Plk3 (IC_{50} = 875 nM). SBE 13 induces cell cycle arrest, reduces cell proliferation (EC_{50} = 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 G_1/S boundary after polo-like kinase 1 inhibition by SBE13. Cell Cycle **10(4)**, 708-720 (2011).

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