PRODUCT INFORMATION

BS-181 (hydrochloride)

Item No. 17996

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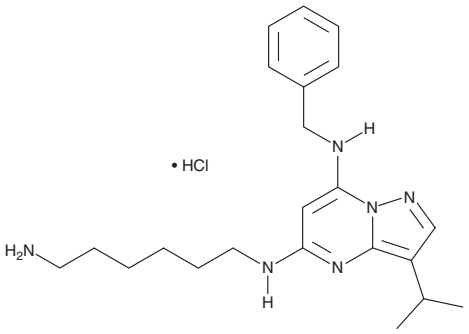
CAS Registry No.:	1397219-81-6
Formal Name:	N^5-(6-aminohexyl)-3-(1-methylethyl)-N^7-(phenylmethyl)-pyrazolo[1,5-a]pyrimidine-5,7-diamine, monohydrochloride
MF:	$C_{22}H_{32}N_6 \bullet HCl$
FW:	417.0
Purity:	≥98%
UV/Vis.:	λ_{max}: 240, 287 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

BS-181 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the BS-181 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. BS-181 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BS-181 (hydrochloride) in these solvents is approximately 12, 25, and 5 mg/ml, respectively.

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 BS-181 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of BS-181 (hydrochloride) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

BS-181 is a Cdk7 inhibitor that blocks the activity of Cdk-activating kinase with an IC_{50} value of 21 nM.[1] It inhibits Cdk2 at a concentration 35-fold higher than that of Cdk7.[1] BS-181 has been shown to inhibit the phosphorylation of Cdk7 substrates, to promote cell cycle arrest and apoptosis, to inhibit the growth of cancer cell lines *in vitro*, and to inhibit the growth of MCF-7 human xenografts in nude mice.[1]

Reference

1. Ali, S., Heathcote, D.A., Kroll, S.H.B., *et al.* The development of a selective cyclin-dependent kinase inhibitor that shows antitumor activity. *Cancer Res.* **69(15)**, 6208-6215 (2009).

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