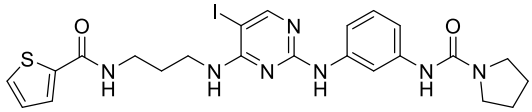
Product data sheet

MedKoo Cat#: 401158 Name: BX795 CAS#: 702675-74-9 Chemical Formula: $C_{23}H_{26}IN_7O_2S$ Exact Mass: 591.09134 Molecular Weight: 591.47	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
BX795 is a potent PDK1 inhibitor. BX795 also suppresses MARK1, MARK2, MARK4, NUAK1.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	40.56	68.57
DMF	12.5	21.13
DMF:PBS (pH 7.2) (1:4)	0.2	0.34
Ethanol	59.15	100.0

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	1.69 mL	8.45 mL	16.91 mL
5 mM	0.34 mL	1.69 mL	3.38 mL
10 mM	0.17 mL	0.85 mL	1.69 mL
50 mM	0.03 mL	0.17 mL	0.34 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Madavaraju K, Yadavalli T, Singh SK, Qatanani F, Shukla D. Prophylactic treatment with BX795 blocks activation of AKT and its downstream targets to protect vaginal keratinocytes and vaginal epithelium from HSV-2 infection. Antiviral Res. 2021 Jul 22;194:105145. doi: 10.1016/j.antiviral.2021.105145. Epub ahead of print. PMID: 34303747.
2. Iqbal A, Suryawanshi R, Yadavalli T, Volety I, Shukla D. BX795 demonstrates potent antiviral benefits against herpes simplex Virus-1 infection of human cell lines. Antiviral Res. 2020 Aug;180:104814. doi: 10.1016/j.antiviral.2020.104814. Epub 2020 May 5. PMID: 32380150; PMCID: PMC7387215.

In vivo study

1. Hopkins J, Yadavalli T, Suryawanshi R, Qatanani F, Volety I, Koganti R, Iqbal A, Shukla D. In Vitro and In Vivo Activity, Tolerability, and Mechanism of Action of BX795 as an Antiviral against Herpes Simplex Virus 2 Genital Infection. Antimicrob Agents Chemother. 2020 Aug 20;64(9):e00245-20. doi: 10.1128/AAC.00245-20. PMID: 32601167; PMCID: PMC7449169.

7. Bioactivity
Biological target:

Product data sheet

BX795 is a potent and selective inhibitor of PDK1, with an IC50 of 6 nM.

In vitro activity

BX795 when added prophylactically to human vaginal keratinocytes generates strong preventative effects against a future HSV-2 infection. BX795 efficiently reduces phosphorylation of AKT and its downstream targets p70S6K and 4EBP1.

Reference: Antiviral Res. 2021 Jul 22;194:105145. https://pubmed.ncbi.nlm.nih.gov/34303747/

In vivo activity

At 1 day postinfection (dpi), mice were treated topically via intravaginal route using DMSO, BX795 (10 μM), or BX795 (50 μM). Interestingly, no evident protection was seen in animals treated with 10 μM BX795 when compared to DMSO control group mice. However, significant loss of infection was found in mice that were treated with 50 μM BX795.

Reference: Antimicrob Agents Chemother. 2020 Sep; 64(9): e00245-20. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7449169/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.