

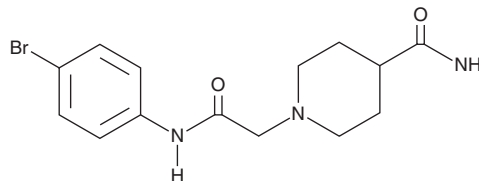
PRODUCT INFORMATION



BCI-121

Item No. 33854

CAS Registry No.: 432529-82-3
Formal Name: 4-(aminocarbonyl)-N-(4-bromophenyl)-1-piperidineacetamide
MF: C₁₄H₁₈BrN₃O₂
FW: 340.2
Purity: ≥98%
UV/Vis.: λ_{max}: 253 nm
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

BCI-121 is supplied as a solid. A stock solution may be made by dissolving the BCI-121 in the solvent of choice, which should be purged with an inert gas. BCI-121 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BCI-121 in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

BCI-121 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BCI-121 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BCI-121 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BCI-121 is an inhibitor of SET and MYND domain-containing protein 3 (SMYD3).¹ It inhibits histone H3 lysine 4 (H3K4) di- and trimethylation in HT-29 cell lysates when used at a concentration of 100 μM. BCI-121 (100 μM) inhibits proliferation in a panel of colorectal, lung, pancreatic, prostate, and ovarian cancer cell lines in an SMYD3 expression-dependent manner. It induces cell cycle arrest at the S phase and decreases global H5K4 methylation and H3K4 dimethylation in HT-29 cells in a concentration-dependent manner. Intratumoral injection of BCI-121 (20 μM) reduces tumor volume in an MHCC97H hepatocellular carcinoma (HCC) mouse xenograft model.²

References

1. Peserico, A., Germani, A., Sanese, P., *et al.* A SMYD3 small-molecule inhibitor impairing cancer cell growth. *J. Cell. Physiol.* **230(10)**, 2447-2460 (2015).
2. Wang, Y., Xie, B.-H., Lin, W.-H., *et al.* Amplification of SMYD3 promotes tumorigenicity and intrahepatic metastasis of hepatocellular carcinoma via upregulation of CDK2 and MMP2. *Oncogene* **38(25)**, 4948-4961 (2019).

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.

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