

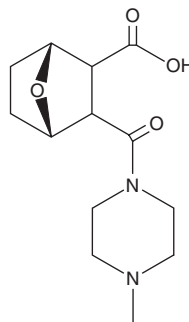
PRODUCT INFORMATION



LB-100

Item No. 29105

CAS Registry No.: 1632032-53-1
Formal Name: (1R,4S)-rel-3-[(4-methyl-1-piperazinyl) carbonyl]-7-oxabicyclo[2.2.1]heptane-2-carboxylic acid
MF: C₁₃H₂₀N₂O₄
FW: 268.3
Purity: ≥98%
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

LB-100 is supplied as a crystalline solid. A stock solution may be made by dissolving the LB-100 in the solvent of choice, which should be purged with an inert gas. LB-100 is slightly soluble in ethanol.

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 LB-100 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of LB-100 in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

LB-100 is an inhibitor of protein phosphatase 2A (PP2A) with anticancer activity.¹ It reduces PP2A activity and is cytotoxic to BxPC-3 and PANC-1 cells (IC₅₀s = 0.85 and 3.87 μM, respectively). LB-100 inhibits radiation-induced Rad51 focus formation and homologous recombination repair in PANC-1 and MiaPaCa-2 cells.² *In vivo*, it increases tumor microvessel density and VEGF secretion and decreases tumor volume in a PANC-1 mouse xenograft model when administered at a dose of 2 mg/kg.¹ LB-100 (1.5 mg/kg) enhances radiation-induced reductions in tumor volume in CNE1 and CNE2 radioresistant nasopharyngeal carcinoma mouse xenograft models.³

References

1. Bai, X., Zhi, X., Zhang, Q., *et al.* Inhibition of protein phosphatase 2A sensitizes pancreatic cancer to chemotherapy by increasing drug perfusion via HIF-1α-VEGF mediated angiogenesis. *Cancer Lett.* **355(2)**, 281-287 (2014).
2. Wei, D., Parsels, L.A., Karnak, D., *et al.* Inhibition of protein phosphatase 2A radiosensitizes pancreatic cancers by modulating CDC25C/CDK1 and homologous recombination repair. *Clin. Cancer Res.* **19(16)**, 4422-4432 (2013).
3. Hong, C.S., Ho, W., Zhang, C., *et al.* LB100, a small molecule inhibitor of PP2A with potent chemo- and radio-sensitizing potential. *Cancer Biol. Ther.* **16(6)**, 821-833 (2015).

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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