

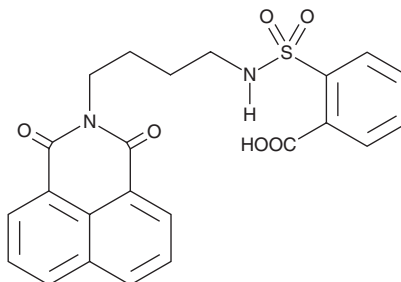
PRODUCT INFORMATION



DBIBB

Item No. 17529

CAS Registry No.: 1569309-92-7
Formal Name: 2-[[[4-(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)butyl]amino]sulfonyl]-benzoic acid
MF: C₂₃H₂₀N₂O₆S
FW: 452.5
Purity: ≥98%
UV/Vis.: λ_{max}: 233, 333 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

DBIBB is supplied as a crystalline solid. A stock solution may be made by dissolving the DBIBB in the solvent of choice, which should be purged with an inert gas. DBIBB is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of DBIBB in these solvents is approximately 30 and 10 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 DBIBB can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DBIBB in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The lysophosphatidic acid (LPA) receptor LPA₂ is a G protein-coupled receptor that has roles in protecting against radiation-induced cell death.¹ DBIBB is a non-lipid agonist of LPA₂ (EC₅₀ = 0.10 μM) that is without effect at other LPA receptor subtypes.² It protects rat intestinal crypt epithelium-like IEC-6 cells against caspase 3/7 activation and apoptosis following irradiation.² DBIBB dose-dependently attenuates radiation-induced DNA damage in mouse embryo fibroblasts (MEFs) expressing LPA₂ but not in MEFs lacking this receptor.² It also increases the survival of mice suffering from hematopoietic acute radiation syndrome after total-body irradiation.²

References

1. Lin, F.-T., Lai, Y.-J., Makarova, N., *et al.* The lysophosphatidic acid 2 receptor mediates down-regulation of Siva-1 to promote cell survival. *J. Biol. Chem.* **282**(52), 37759-37769 (2007).
2. Patil, R., Szabó, E., Fells, J.I., *et al.* Combined mitigation of the gastrointestinal and hematopoietic acute radiation syndromes by an LPA₂ receptor-specific nonlipid agonist. *Chem. Biol.* **22**, 206-216 (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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM