

PRODUCT INFORMATION



LP-533401

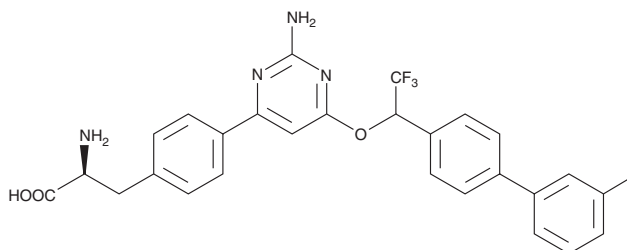
Item No. 10492

CAS Registry No.: 945976-43-2
Formal Name: 4-[2-amino-6-[2,2,2-trifluoro-1-(3'-fluoro[1,1'-biphenyl]-4-yl)ethoxy]-4-pyrimidinyl]-L-phenylalanine

MF: C₂₇H₂₂F₄N₄O₃
FW: 526.5
Purity: ≥98%
UV/Vis.: λ_{max}: 246 nm
Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

LP-533401 is supplied as a crystalline solid. A stock solution may be made by dissolving the LP-533401 in the solvent of choice. LP-533401 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of LP-533401 in these solvents is approximately 5 and 10 mg/ml, respectively.

LP-533401 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LP-533401 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. LP-533401 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

LP-533401 is an inhibitor of tryptophan 5-hydroxylase 1 (Tph1) that blocks the biosynthesis of gut-derived serotonin, completely inhibiting serotonin production in Tph1-expressing cells at a dose of 1 μM.¹ It prevents the development of and fully rescues, in a dose-dependent manner, osteoporosis in ovariectomized and aged mice.^{1,2} LP-533401 has also been used to elucidate the role of gut-derived serotonin in pulmonary hypertension and leukemia in mice.^{3,4}

References

1. Yadav, V.K., Baliahi, S., Suresh, P.S., *et al.* Inhibition of gut-derived serotonin synthesis: A potential bone anabolic treatment. *Nat. Med.* **16**(3), 308-312 (2010).
2. Inose, H., Zhou, B., Yadav, V.K., *et al.* Efficacy of serotonin inhibition in mouse models of bone loss. *J. Bone Miner. Res.* **26**(9), 2002-2011 (2011).
3. Abid, S., Houssaini, A., Chevarin, C., *et al.* Inhibition of gut- and lung-derived serotonin attenuates pulmonary hypertension in mice. *Am. J. Physiol. Lung Cell Mol. Physiol.* **303**(6), L500-508 (2012).
4. Krevvata, M., Silva, B.C., Manavalan, J.S., *et al.* Inhibition of leukemia cell engraftment and disease progression in mice by osteoblasts. *Blood* **124**(18), 2834-2846 (2014).

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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