PRODUCT INFORMATION



L-165,041

Item No. 9000249

CAS Registry No.: 79558-09-1

Formal Name: 2-[4-[3-(4-acetyl-3-hydroxy-

2-propylphenoxy)propoxyl

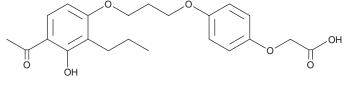
phenoxy]-acetic acid

MF: $C_{22}H_{26}O_{7}$ FW: 402.4 **Purity:** ≥98%

UV/Vis.: λ_{max} : 222, 284 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

L-165,041 is supplied as a crystalline solid. A stock solution may be made by dissolving the L-165,041 in the solvent of choice. L-165,041 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of L-165,041 in these solvents is approximately 30 and 50 mg/ml, respectively.

L-165,041 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, L-165,041 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. L-165,041 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

L-165,041 is a potent and selective agonist of the nuclear receptor PPAR β/δ (K_i = 9 nM, EC₅₀ = ~500 nM for hPPARβ/δ).^{1,2} It is less effective against PPARα and PPARγ, with activity at those receptors depending on cell type and system of study.²⁻⁴ L-165,041 is used to evaluate the diverse roles of PPARβ/δ, including those related to cholesterol metabolism, inflammation, and neuroprotection.^{2,5,6}

References

- 1. Berger, J., Leibowitz, M.D., Doebber, T.W., et al. Novel peroxisome proliferator-activated receptor (PPAR) y and PPARδ ligands produce distinct biological effects. J. Biol. Chem. 274, 6718-6725 (1999).
- 2. Willson, T.M., Brown, P.J., Sternbach, D.D., et al. The PPARs: From orphan receptors to drug discovery. J. Med. Chem. 43(4), 528-550 (2000).
- 3. Porcelli, L., Gilardi, F., Laghezza, A., et al. Synthesis, characterization and biological evaluation of ureidofibrate-like derivatives endowed with peroxisome proliferator-activated receptor activity. J. Med. Chem. 55(1), 37-54 (2012).
- 4. Basséne, C.E., Suzenet, F., Hennuyer, N., et al. Studies towards the conception of new selective PPARβ/δ ligands. Bioorg. Med. Chem. Lett. 16(17), 4528-4532 (2006).
- 5. Iwashita, A., Muramatsu, Y., Yamazaki, T., et al. Neuroprotective efficacy of the peroxisome proliferator-activated receptor δ-selective agonists in vitro and in vivo. J. Pharmacol. Exp. Ther. 320(3), 1087-1096 (2007).
- Leibowitz, M.D., Fiévet, C., Hennuyer, N., et al. Activation of PPARδ alters lipid metabolism in db/db mice. FEBS Lett. 473(3), 333-336 (2000).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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