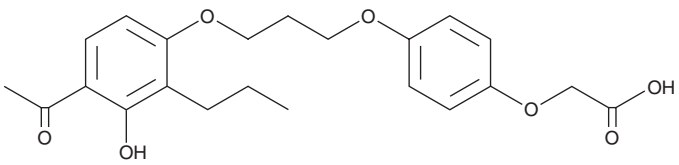
PRODUCT INFORMATION

L-165,041

Item No. 9000249

CAS Registry No.:	79558-09-1
Formal Name:	2-[4-[3-(4-acetyl-3-hydroxy-2-propylphenoxy)propoxy] 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 PPARβ/δ (K_i = 9 nM, EC_{50} = ~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

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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).
6. 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).

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