

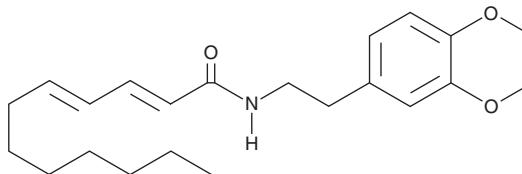
PRODUCT INFORMATION



WOBE437

Item No. 23506

CAS Registry No.: 2108100-73-6
Formal Name: (2E,4E)-N-[2-(3,4-dimethoxyphenyl)ethyl]-2,4-dodecadienamide
MF: C₂₂H₃₃NO₃
FW: 359.5
Purity: ≥97%
UV/Vis.: λ_{max}: 254 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

WOBE437 is supplied as a crystalline solid. A stock solution may be made by dissolving the WOBE437 in the solvent of choice. WOBE437 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of WOBE437 in these solvents is approximately 1 and 2.5 mg/ml, respectively.

WOBE437 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, WOBE437 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. WOBE437 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

WOBE437 is a potent endocannabinoid uptake inhibitor with IC₅₀ values of 10 and 283 nM for arachidonoyl ethanolamide (AEA; Item No. 90050) and 2-arachidonoyl glycerol (2-AG; Item No. 62160) uptake, respectively, in U937 cells.¹ It is greater than 1,000-fold selective for endocannabinoid transporters over fatty acid amide hydrolase (FAAH; Item No. 10010183) and the 2-AG hydrolyzing enzymes MAGL, ABHD6, and ABHD12. WOBE437 inhibits AEA uptake in FAAH-deficient HMC-1 human mast cells and Neuro2a mouse neuroblastoma cells (IC₅₀s = 137 and 55 nM, respectively) and reduces AEA uptake by 50% in rat cortical neurons when used at a concentration of 1 μM. It also reduces 2-AG uptake by 40% in Neuro2a cells at a concentration of 5 μM. *In vivo*, WOBE437 increases AEA and 2-AG levels by 1.5-fold in mouse brain but not peripheral tissues after intraperitoneal administration of a 10 mg/kg dose for seven days. WOBE437 (10 mg/kg) also induces a typical tetrad of hypothermia, catalepsy, analgesia, and hypomotility in mice, indicating it also acts as an indirect cannabinoid (CB) receptor 1 agonist.

Reference

1. Chicca, A., Nicolussi, S., Bartholomäus, R., *et al.* Chemical probes to potently and selectively inhibit endocannabinoid cellular reuptake. *Proc. Natl. Acad. Sci. USA* **114**(25), E5006-E5015 (2017).

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.

WARRANTY AND LIMITATION OF REMEDY

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