

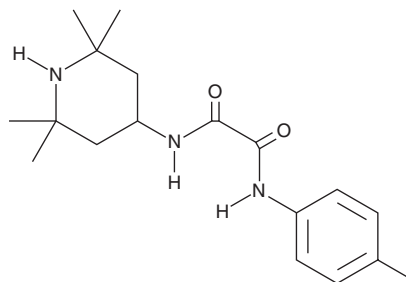
PRODUCT INFORMATION



YYA-021

Item No. 22915

CAS Registry No.: 144217-65-2
Formal Name: N¹-(4-methylphenyl)-N²-(2,2,6,6-tetramethyl-4-piperidiny)-ethanediamide
MF: C₁₈H₂₇N₃O₂
FW: 317.4
Purity: ≥98%
UV/Vis.: λ_{max}: 276 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

YYA-021 is supplied as a crystalline solid. A stock solution may be made by dissolving the YYA-021 in the solvent of choice, which should be purged with an inert gas. YYA-021 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of YYA-021 in these solvents is approximately 0.125, 5, and 12 mg/ml, respectively.

YYA-021 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YYA-021 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. YYA-021 has a solubility of approximately 0.03 mg/ml in a 1:30 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

YYA-021 is a small molecule CD4 mimetic that competitively inhibits gp120 from interacting with CD4, preventing HIV entry into cells.¹ It inhibits infection of PM1/CCR5 cells from lab isolates of the HIV-1 strains IIIIB (X4, Sub B) and 89.6 (dual, Sub B) (IC₅₀s = 23 and 41 μM, respectively) as well as clinical isolates of the fTOI (R5, Sub B) and KYAG strains (R5, Sub B) (IC₅₀s = 16 and 51 μM, respectively). It also inhibits HIV-1 infection of TZM-bl cells (IC₅₀ = 8.4 μM) and reduces viability of mock-infected PM1/CCR5 cells with cytotoxic concentration (CC₅₀) values of 260 μM.²

References

1. Yamada, Y., Ochiai, C., Yoshumura, K., *et al.* CD4 mimics targeting the mechanism of HIV entry. *Bioorg. Med. Chem. Lett.* **20(1)**, 354-358 (2010).
2. Narumi, T., Arai, H., Yoshimura, K., *et al.* Small molecular CD4 mimics as HIV entry inhibitors. *Bioorg. Med. Chem.* **19(22)**, 6735-6742 (2011)

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