

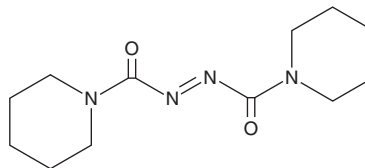
PRODUCT INFORMATION



1,1'-(Azodicarbonyl)dipiperidine

Item No. 30486

CAS Registry No.: 10465-81-3
Formal Name: 1,1'-(1,2-diazenediyl)bis[1-(1-piperidinyloxy)-methanone]
Synonyms: ADDP, NSC 356027
MF: C₁₂H₂₀N₄O₂
FW: 252.3
Purity: ≥98%
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

1,1'-(Azodicarbonyl)dipiperidine (ADDP) is supplied as a crystalline solid. A stock solution may be made by dissolving the ADDP in the solvent of choice, which should be purged with an inert gas. ADDP is soluble in organic solvents such as ethanol and dimethyl formamide (DMF). The solubility of ADDP in these solvents is approximately 1 and 10 mg/ml, respectively.

ADDP is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ADDP should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ADDP has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ADDP is a reagent commonly used in the Mitsunobu reaction for the condensation of an alcohol and an acidic compound.^{1,2} It has been used as a reagent in the synthesis of G protein-coupled receptor 120 (GPR120) agonists with antidiabetic activity and peroxisome proliferator-activated receptor α (PPAR α), PPAR γ , and PPAR δ triple agonists.^{3,4}

References

1. Tsunoda, T., Yamamiya, Y., and Itô, S. 1,1'-(Azodicarbonyl)dipiperidine-tributylphosphine, a new reagent system for Mitsunobu reaction. *Tetrahedron Lett.* **34(10)**, 1639-1642 (1993).
2. Hirose, D., Gazvoda, M., Košmrlj, J., et al. Systematic evaluation of 2-arylazocarboxylates and 2-arylazocarboxamides as Mitsunobu reagents. *J. Org. Chem.* **83(8)**, 4712-4729 (2018).
3. Zhang, X., Cai, C., Winters, M., et al. Design, synthesis and SAR of a novel series of heterocyclic phenylpropanoic acids as GPR120 agonists. *Bioorg. Med. Chem. Lett.* **27(15)**, 3272-3278 (2017).
4. Mogensen, J.P., Jeppesen, L., Bury, P.S., et al. Design and synthesis of novel PPAR α / γ / δ triple activators using a known PPAR α / γ dual activator as structural template. *Bioorg. Med. Chem. Lett.* **13(2)**, 257-260 (2003).

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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