

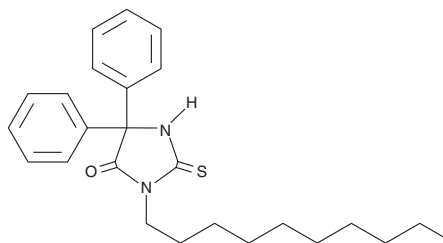
Product Information



CAY10570

Catalog No. 10010032

CAS Registry No.: 875014-22-5
Formal Name: 3-decyl-5,5'-diphenyl-2-thioxo-4-imidazolidinone
MF: C₂₅H₃₂N₂OS
FW: 408.6
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that CAY10570 be stored as supplied at -20°C. It should be stable for at least one year.

CAY10570 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of CAY10570 in these solvents is approximately 20 mg/ml.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

The enzyme fatty acid amide hydrolase (FAAH) is capable of hydrolyzing and inactivating anandamide (AEA) and other fatty acid amides that act as agonists for the central cannabinoid (CB₁) receptor.¹ CAY10570 is a reversible competitive inhibitor of FAAH activity exhibiting an IC₅₀ value of 1.3 μM.² CAY10570 has no affinity for the human CB₁ receptor and acts as a competitive inhibitor of FAAH activity without being hydrolyzed by the enzyme.²

References

1. Cravatt, B.F., Giang, D.K., Mayfield, S.P., *et al.* Molecular characterization of an enzyme that degrades neuromodulatory fatty-acid amides. *Nature* **384**, 83-87 (1996).
2. Muccioli, G.G., Fazio, N., Scriba, G.K.E., *et al.* Substituted 2-thioxoimidazolidin-4-ones and imidazolidine-2,4-diones as fatty acid amide hydrolase inhibitors templates. *J. Med. Chem.* **49**, 417-425 (2006).

Related Products

URB597 - Cat. No. 10046 • N-Oleoyl Dopamine - Cat. No. 10115 • Arachidonoyl Serotonin - Cat. No. 70665 • JP104 - Cat. No. 10008661

WARNING: THIS PRODUCT IS NOT FOR HUMAN OR ANIMAL DISEASE DIAGNOSIS OR THERAPEUTIC DRUG USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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