

Product Data Sheet

Product Name: NT-0796

Cat. No.: GC73644

Chemical Properties

Cas. No. 2272917-13-0

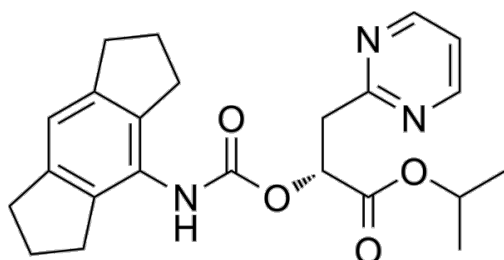
Formula $C_{23}H_{27}N_3O_4$ M.Wt 409.48

Solubility DMSO : 100 mg/mL (244.21 mM; Need ultrasonic) Storage -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

NT-0796 is an orally active, selective and CNS-penetrant NLRP3 inflammasome inhibitor. NT-0796

Caution: Product has not been fully validated for medical applications. For research use only.

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inhibits IL-1 β release in human PBMC cells with an IC₅₀ value of 0.32 nM. NT-0796 is an isopropyl ester that undergoes intracellular conversion to NDT-19795, the carboxylic acid active species. NT-0796 reverses high fat diet-induced obesity, systemic inflammation and astrogliosis in the diet-induced obesity mouse model. NT-0796 is promising for research of neurodegenerative disorders, including Alzheimer's disease, Parkinson's disease, multiple sclerosis, and amyotrophic lateral sclerosis^{[1][2][3][4]}.

References:

- [1]. David Harrison, et al. Discovery of Clinical Candidate NT-0796, a Brain-Penetrant and Highly Potent NLRP3 Inflammasome Inhibitor for Neuroinflammatory Disorders. J Med Chem. 2023 Oct 24.
- [2]. Thornton P, et al. Reversal of High Fat Diet-Induced Obesity, Systemic Inflammation, and Astrogliosis by the NLRP3 Inflammasome Inhibitors NT-0249 and NT-0796. J Pharmacol Exp Ther. 2024 Feb 15;388(3):813-826.
- [3]. Smolak P, et al. Target Cell Activation of a Structurally Novel NOD-Like Receptor Pyrin Domain-Containing Protein 3 Inhibitor NT-0796 Enhances Potency. J Pharmacol Exp Ther. 2024 Feb 15;388(3):798-812.
- [4]. Doedens JR, et al. The ester-containing prodrug NT-0796 enhances delivery of the NLRP3 inflammasome inhibitor NDT-19795 to monocytic cells expressing carboxylesterase-1. Biochem Pharmacol. 2024 Sep;227:116455.

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