
Product Data Sheet

Product Name: CAY10654

Cat. No.: GC18910

Chemical Properties

Cas. No. 1298023-69-4

Chemical Name N'-(5-chloro-2-hydroxyphenyl)-N3-octylmalonamide

SMILES C1C1=CC=C(O)C(NC(CC(NCCCCCCCC)=O)=O)=C1Formula $C_{17}H_{25}ClN_2O_3$ M.Wt 340.9

Solubility DMF: 20 mg/ml, DMSO: 10 mg/ml, Ethanol: 5 mg/ml Storage Store at -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**

The gram-negative pathogen *Pseudomonas aeruginosa* uses N-acylated-L-homoserine lactones (AHLs) in quorum sensing to modulate transcriptional activators, including LasR, and regulate the expression of virulence factors. The same AHLs suppress the host immune system. CAY10654 is a synthetic analog of natural AHLs that suppresses host immunity without inducing LasR. It inhibits the proliferation of mouse peripheral blood leukocytes by concanavalin A (EC₅₀ = 9.3 μM) without concurrent cytotoxicity. LasR is not induced by 100 μM CAY10654, although LasR is potently induced by natural AHL (5 μM) in positive control experiments.

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

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