

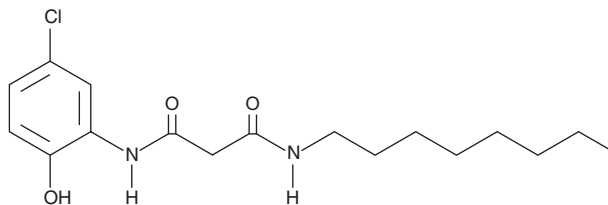
# PRODUCT INFORMATION



**CAY10654**

Item No. 10857

**CAS Registry No.:** 1298023-69-4  
**Formal Name:** N<sup>1</sup>-(5-chloro-2-hydroxyphenyl)-  
N<sup>3</sup>-octyl-propanediamide  
**MF:** C<sub>17</sub>H<sub>25</sub>ClN<sub>2</sub>O<sub>3</sub>  
**FW:** 340.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 213, 247, 296 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

CAY10654 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10654 in the solvent of choice, which should be purged with an inert gas. CAY10654 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CAY10654 in these solvents is approximately 5, 10, and 20 mg/ml, respectively.

## Description

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.<sup>1</sup> It inhibits the proliferation of mouse peripheral blood leukocytes by concanavalin A (EC<sub>50</sub> = 9.3 μM) without concurrent cytotoxicity.<sup>1</sup> LasR is not induced by 100 μM CAY10654, although LasR is potently induced by natural AHL (5 μM) in positive control experiments.<sup>1</sup>

## Reference

1. Jadhav, G.P., Chhabra, S.R., Telford, G., *et al.* Immunosuppressive but non-LasR-inducing analogues of the *Pseudomonas aeruginosa* quorum-sensing molecule N-(3-oxododecanoyl)-L-homoserine lactone. *J. Med. Chem.* **54**(9), 3348-59 (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.

### WARRANTY AND LIMITATION OF REMEDY

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