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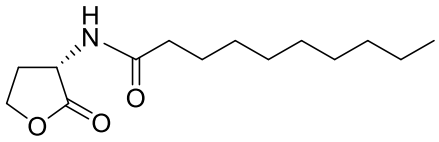
PRODUCT DATA SHEET

Decanoyl-L-homoserine lactone

Code No.: **BIA-D1497**

Pack sizes: **5 mg, 25 mg**



Synonyms : C10-HSL, N-Decanoyl-L-homoserine lactone

Specifications

CAS #	:	**177315-87-6**
Molecular Formula	:	**$C_{14}H_{25}NO_3$**
Molecular Weight	:	**255.4**
Source	:	**Synthetic**
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol, DMSO. Poor water solubility.**

Application Notes

Decanoyl-L-homoserine lactone is an active quorum sensing modulator first recognised in Burkholderia pseudomallei. Decanoyl-L-homoserine lactone and other acylhomoserine lactones have been detected in hundreds of bacterial species and, while the homologues vary between species and strains, the homoserine lactones are the major chemical modulators of within and between cell communication and regulation. The most significant variable defining the function of the homoserine lactone is the length of the acyl chain, with shorter chains displaying opposing actions to the longer chains.

References

1. Quorum sensing and Chromobacterium violaceum: exploitation of violacein production and inhibition for the detection of N-acylhomoserine lactones. McClean K.H. et al., Microbiology 1997, 143, 3703.
2. Small molecule inhibitors of bacterial quorum sensing and biofilm formation Geske G.D. et al., J. Am. Chem. Soc. 2005, 127, 12762.

For in vitro laboratory use only. Not for human or animal use.

Updated: 14 November 2025

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