



Product Specification Sheet

Product Name: (-)-ITD-1

Catalog Number: C4831

Technical information:

Chemical Formula: $C_{27}H_{29}NO_3$

CAS #: N/A

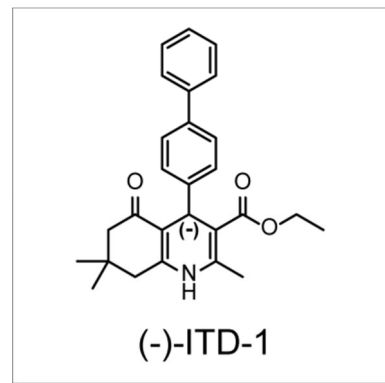
Molecular Weight: 415.52

Purity: >98%

Appearance: Yellow powder

Solubility: Soluble in DMSO up to 50 mM

Chemical Name: ethyl 4-([1,1'-biphenyl]-4-yl)-2,7,7-trimethyl-5-oxo-1,4,5,6,7,8-hexahydroquinoline-3-carboxylate



Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

- Handling:**
- To make 10 mM stock solution, add 0.241 mL of DMSO for each 1 mg of ITD-1.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: (-)-ITD-1 is a resolved enantiomer of ITD-1 that possesses significantly less TGF- β inhibition and cardiogenesis compared to either racemic ITD-1 or (+)-ITD-1. Compared to racemic ITD-1 or (+)-ITD-1, (-)-ITD-1 can serve as a control for non-specific effects of ITD-1. (-)-ITD-1 has been formulated as a salt to increase stability and improve water solubility (~0.1 mg/mL) for ease of handling. As a salt, (-)-ITD-1 is chemically and metabolically stable and can be used as a control in the study a wide range of biological studies in cellular processing and TGF- β signaling.

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- Reference:** 1. Willems E, et al. Small molecule-mediated TGF- β type II receptor degradation promotes cardiomyogenesis in embryonic stem cells. *Cell Stem Cell*. 2012;11(2):242-52. PMID: [22862949](https://pubmed.ncbi.nlm.nih.gov/22862949/)

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