

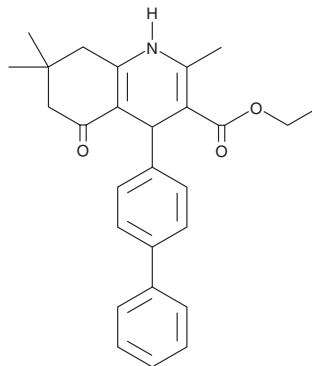
PRODUCT INFORMATION



ITD 1

Item No. 23326

CAS Registry No.: 1099644-42-4
Formal Name: 4-[1,1'-biphenyl]-4-yl-1,4,5,6,7,8-hexahydro-2,7,7-trimethyl-5-oxo-3-quinolinecarboxylic acid, ethyl ester
MF: C₂₇H₂₉NO₃
FW: 415.5
Purity: ≥98%
UV/Vis.: λ_{max}: 245, 368 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

ITD 1 is supplied as a crystalline solid. A stock solution may be made by dissolving the ITD 1 in the solvent of choice, which should be purged with an inert gas. ITD 1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ITD 1 in these solvents is approximately 20 mg/ml.

ITD 1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ITD 1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ITD 1 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ITD 1 is an inhibitor of TGF-β (IC₅₀ = 0.85 μM).¹ It is selective for TGF-β in an SBE4/Smad reporter assay, providing 83% inhibition when used at a concentration of 2.5 μM, over activin A, which is inhibited by 51% when used at the same concentration. ITD 1 inhibits TGF-β signaling by induction of TGF-β receptor type II degradation. It stimulates differentiation of mouse embryonic stem cells (mESCs) into cardiomyocytes.

Reference

- Schade, D., Lanier, M., Willems, E., *et al.* Synthesis and SAR of b-annulated 1,4-dihydropyridines define cardiomyogenic compounds as novel inhibitors of TGFβ signaling. *J. Med. Chem.* **55(22)**, 9946-9957 (2012).

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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