

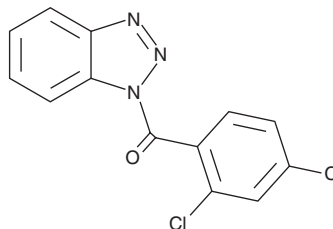
PRODUCT INFORMATION



ITSA1

Item No. 18681

CAS Registry No.: 200626-61-5
Formal Name: 1H-benzotriazol-1-yl(2,4-dichlorophenyl)-methanone
MF: C₁₃H₇Cl₂N₃O
FW: 292.1
Purity: ≥95%
UV/Vis.: λ_{max}: 229, 300 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

ITSA1 is supplied as a crystalline solid. A stock solution may be made by dissolving the ITSA1 in the solvent of choice, which should be purged with an inert gas. ITSA1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ITSA1 in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

ITSA1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ITSA1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ITSA1 has a solubility of approximately 0.3 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

Trichostatin A (TSA; Item No. 89730) is a potent, reversible inhibitor of histone deacetylase (HDAC) that inhibits HDAC1 (IC₅₀ = 70 nM) in Jurkat cells, resulting in cell cycle arrest.¹ ITSA1 is a cell-permeable benzotriazole amide that blocks TSA action, reducing TSA-induced acetylation of histone and tubulin in A549 cells when given at 50 μM.² At the same concentration, ITSA1 also prevents TSA-mediated cell cycle arrest and apoptosis.² It similarly blocks the action of the HDAC inhibitor SAHA (Item No. 10009929), preventing SAHA-induced hyperacetylation of tubulin in A549 cells.² ITSA1 reduces TSA-regulated transcription in mouse embryonic stem cells and in zebrafish.²

References

1. Hoshikawa, Y., Kwon, H.J., Yoshida, M., *et al.* Trichostatin A induces morphological changes and gelsolin expression by inhibiting histone deacetylase in human carcinoma cell lines. *Exp. Cell Res.* **214**, 189-197 (1994).
2. Koeller, K.M., Haggarty, S.J., Perkins, B.D., *et al.* Chemical genetic modifier screens: Small molecule trichostatin suppressors as probes of intracellular histone and tubulin acetylation. *Chem. Biol.* **10**(5), 397-410 (2003).

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.

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