

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



## ITSA1

Item No. 18681

CAS Registry No.: 200626-61-5

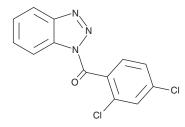
Formal Name: 1H-benzotriazol-1-yl(2,4-

dichlorophenyl)-methanone

MF:  $C_{13}H_7CI_2N_3O$ 

FW: 292.1 **Purity:** ≥95%

Stability: ≥2 years at -20°C Supplied as: A crystalline solid UV/Vis.:  $\lambda_{max}$ : 229, 300 nm



#### **Laboratory Procedures**

For long term storage, we suggest that ITSA1 be stored as supplied at -20°C. It should be stable for at least two years.

ITSA1 is supplied as a crystalline solid. A stock solution may be made by dissolving the ITSA1 in the solvent of choice. ITSA1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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 ( $IC_{50}$  = 70 nM) in Jurkat cells, resulting in cell cycle arrest.<sup>1</sup> 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  $\mu$ M.<sup>2</sup> At the same concentration, ITSA1 also prevents TSA-mediated cell cycle arrest and apoptosis.<sup>2</sup> It similarly blocks the action of the HDAC inhibitor SAHA (Item No. 10009929), preventing SAHA-induced hyperacetylation of tubulin in A549 cells.<sup>2</sup> ITSA1 reduces TSA-regulated transcription in mouse embryonic stem cells and in zebrafish.<sup>2</sup>

#### 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
- 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.

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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