

Product Name: Nitazoxanide

Catalog No.: 7234

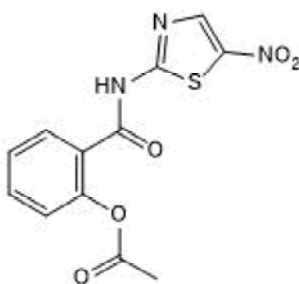
Batch No.: 1

CAS Number: 55981-09-4

IUPAC Name: 2-(Acetyloxy)-N-(5-nitro-2-thiazolyl)benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₉N₃O₅S
Batch Molecular Weight: 307.28
Physical Appearance: Beige solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	46.91	2.95	13.67
Found	46.64	2.89	13.64

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Pyruvate flavodoxin/ferredoxin oxidoreductase (PFOR) inhibitor. Also inhibits Wnt signaling by stabilization of peptidyl arginine deiminase 2 (PAD2). Broad-spectrum antiparasitic and antiviral. Inhibits SARS-CoV-2 infection in Vero E6 cells (EC₅₀ = 2.12µM).

Physical and Chemical Properties:

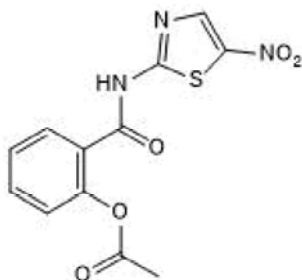
Batch Molecular Formula: C₁₂H₉N₃O₅S

Batch Molecular Weight: 307.28

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Wang et al (2020) Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) *in vitro*. Cell Res. **30** 269. PMID: 32020029.

Shakya et al (2018) Update on Nitazoxanide: a multifunctional chemotherapeutic agent. Curr.Drug Discov.Technol. **15** 201. PMID: 28748751.

Qu et al (2017) Small molecule promotes β-catenin citrullination and inhibits Wnt signaling in cancer. Nat.Chem.Biol. **14** 94. PMID: 29083417.

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