

Product Name: Ceefourin 1

Catalog No.: 5867

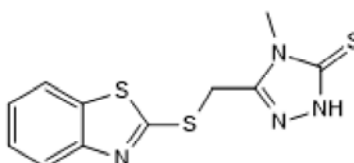
Batch No.: 1

CAS Number: 315702-40-0

IUPAC Name: 5-[(2-Benzothiazolylthio)methyl]-2,4-dihydro-4-methyl-3H-1,2,4-triazole-3-thione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₀N₄S₃
Batch Molecular Weight: 294.42
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.88	3.42	19.03
Found	44.79	3.38	18.92

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

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Description:

Ceefourin 1 is a selective MRP (multidrug resistance-associated protein) 4 inhibitor ($IC_{50} = 2.6 \mu M$). Selective for MRP4 over P-gp, MRP1 and ABCG2. Sensitizes MRP4 over-expressing cells to SN 38 (Cat. No. 2684). Ceefourin 1 inhibits cAMP efflux from acute myeloid leukemia cells (AML) and promotes apoptosis in combination with Histamine (Cat. No. 3545).

Physical and Chemical Properties:

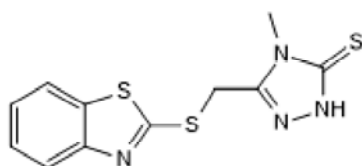
Batch Molecular Formula: $C_{11}H_{10}N_4S_3$

Batch Molecular Weight: 294.42

Physical Appearance: White solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at +4°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:

Sahores *et al* (2023) Ceefourin-1, a MRP4/ABCC4 inhibitor, induces apoptosis in AML cells enhanced by histamine. *Biochim.Biophys.Acta* **1867** 130322. PMID: 36773726.

Cheung *et al* (2014) High-throughput screening identifies Ceefourin 1 and Ceefourin 2 as highly selective inhibitors of multidrug resistance protein 4 (MRP4). *Biochem.Pharmacol.* **91** 97. PMID: 24973542.

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