

Product Name: BPTES

Catalog No.: 5301

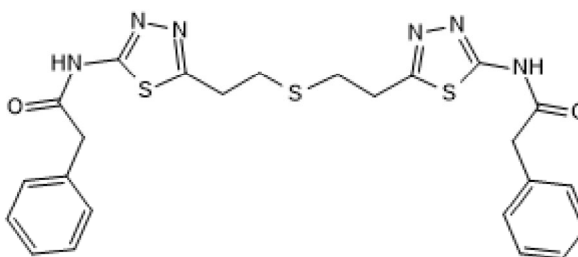
Batch No.: 1

CAS Number: 314045-39-1

IUPAC Name: *N,N'*-[Thiobis(2,1-ethanediy-1,3,4-thiadiazole-5,2-diy)]bisbenzeneacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₂₄N₆O₂S₃
Batch Molecular Weight: 524.68
Physical Appearance: White solid
Solubility: DMSO to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 91.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.94	4.61	16.02
Found	54.66	4.61	15.95

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

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Description:

BPTES is an allosteric glutaminase (GLS1) inhibitor ($IC_{50} = 3.3 \mu M$). Selective for GLS1 over GLS2 and γ -glutamyl transpeptidase. Induces cell death of P493 human lymphoma B cells in vitro and reduces tumor volume of P493 cell xenografts in mice.

Physical and Chemical Properties:

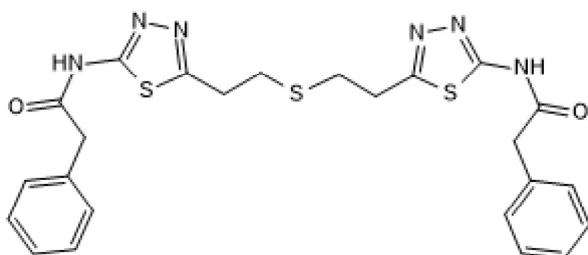
Batch Molecular Formula: $C_{24}H_{24}N_6O_2S_3$

Batch Molecular Weight: 524.68

Physical Appearance: White solid

Minimum Purity: $\geq 90\%$

Batch Molecular Structure:



Storage: Store at $-20^{\circ}C$

Solubility & Usage Info:

DMSO to 20 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 $45-60^{\circ}C$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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 $-20^{\circ}C$ or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Le et al (2012) Glucose-independent glutamine metabolism via TCA cycling for proliferation and survival in B cells. *Cell.Metab.* **15** 110. PMID: 22225880.

Shukla et al (2012) Design, synthesis, and pharmacological evaluation of bis-2-(5-phenylacetamido-1,2,4-thiadiazol-2-yl)ethyl sulfide 3 (BPTES) analogs as glutaminase inhibitors. *J.Med.Chem.* **55** 10551. PMID: 23151085.

DeLaBarre et al (2011) Full-length human glutaminase in complex with an allosteric inhibitor. *Biochemistry* **50** 10764. PMID: 22049910.

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