

# Certificate of Analysis

**Product Name:** BPTES

**Catalog No.:** 5301

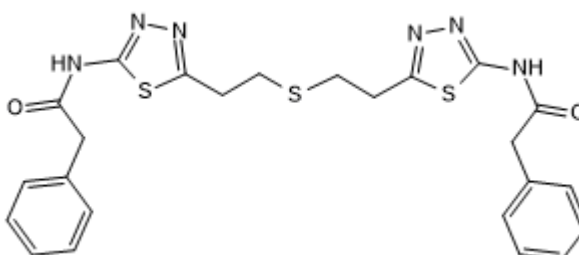
**Batch No.:** 1

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:** C<sub>24</sub>H<sub>24</sub>N<sub>6</sub>O<sub>2</sub>S<sub>3</sub>  
**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 95.1% purity  
**<sup>1</sup>H 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:**

Allosteric glutaminase (GLS1) inhibitor ( $IC_{50} = 3.3 \mu M$ ). Selective for GLS1 over GLS2 and  $\gamma$ -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:**

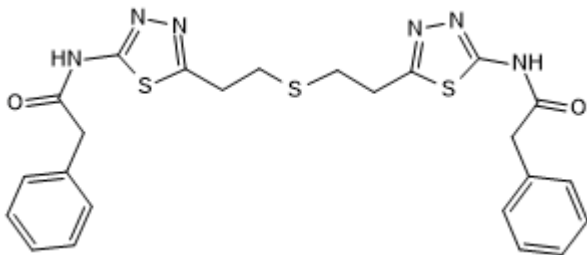
Batch Molecular Formula:  $C_{24}H_{24}N_6O_2S_3$

Batch Molecular Weight: 524.68

Physical Appearance: White solid

**Minimum Purity:** >95%

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

**References:**

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

**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.

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