

**Product Name:** TC-I 15

**Catalog No.:** 4527

**Batch No.:** 3

CAS Number: 916734-43-5

IUPAC Name: *N*-[[*(4R)*-5,5-Dimethyl-3-(phenylsulfonyl)-4-thiazolidinyl]carbonyl]-3-[[[(phenylmethyl)amino]carbonyl]amino]-*L*-alanine

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>23</sub>H<sub>28</sub>N<sub>4</sub>O<sub>6</sub>S<sub>2</sub> · ¼H<sub>2</sub>O

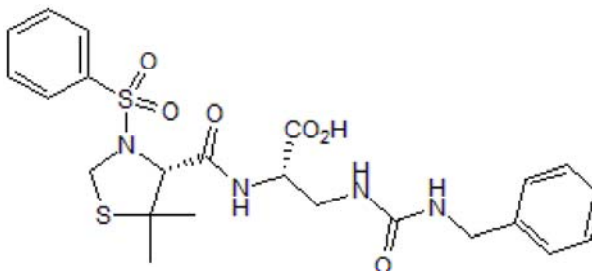
**Batch Molecular Weight:** 525.12

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
1eq. NaOH to 50 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.6% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	52.61	5.47	10.67
Found	52.22	5.43	10.71

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**Description:**

TC-I 15 is a potent  $\alpha_2\beta_1$  integrin inhibitor (IC<sub>50</sub> values for the inhibition of human platelet adhesion to type I collagen are 12 and 715 nM for platelets under static conditions and under flow, respectively). TC-I 15 displays selectivity for  $\alpha_2\beta_1$  over  $\alpha_v\beta_3$ ,  $\alpha_5\beta_1$ ,  $\alpha_6\beta_1$  and  $\alpha_{IIb}\beta_3$  at concentrations exceeding 1000 nM. TC-I 15 reduces collagen IV production in mesangial cells. Active in vivo; TC-I 15 prevents ferric chloride-induced clot formation in mice. Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

**Physical and Chemical Properties:**

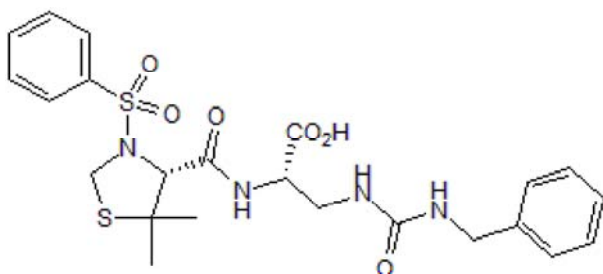
Batch Molecular Formula: C<sub>23</sub>H<sub>28</sub>N<sub>4</sub>O<sub>6</sub>S<sub>2</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 525.12

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

**Borza et al** (2012) Inhibition of integrin  $\alpha_2\beta_1$  ameliorates glomerular injury. *J.Am.Soc.Nephrol.* **23** 1027. PMID: 22440900.

**Miller et al** (2009) Small-molecule inhibitors of integrin  $\alpha_2\beta_1$  that prevent pathological thrombus formation via an allosteric mechanism. *Proc.Natl.Acad.Sci.U.S.A.* **106** 719. PMID: 19141632.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

1eq. NaOH to 50 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.

**Licensing Information:**

Sold under license from the University of Pennsylvania.

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