

**Product Name:** BTS

**Catalog No.:** 1870

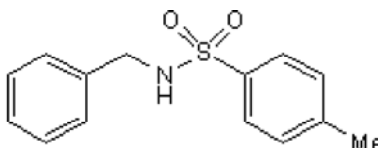
**Batch No.:** 1

CAS Number: 1576-37-0

IUPAC Name: 4-Methyl-N-(phenylmethyl)benzenesulfonamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>14</sub>H<sub>15</sub>NO<sub>2</sub>S  
**Batch Molecular Weight:** 261.34  
**Physical Appearance:** White crystalline solid  
**Solubility:** ethanol to 70 mM  
DMSO to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**Melting Point:** Between 116 - 118°C  
**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**<sup>13</sup>C NMR:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	64.34	5.79	5.36
Found	64.36	5.78	5.41

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**Description:**

Selective inhibitor of the ATPase activity of skeletal muscle myosin II subfragment 1 (S1) (IC<sub>50</sub> ~ 5 mM). Reversibly blocks gliding motility and suppresses force and twitch production in fast skeletal muscle.

**Physical and Chemical Properties:**

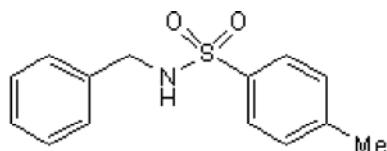
Batch Molecular Formula: C<sub>14</sub>H<sub>15</sub>NO<sub>2</sub>S

Batch Molecular Weight: 261.34

Physical Appearance: White crystalline solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

ethanol to 70 mM

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:**

**Ramachandran et al** (2003) Skeletal muscle myosin cross-bridge cycling is necessary for myofibrillogenesis. *Cell Motil.Cytoskeleton* **55** 61. PMID: 12673599.

**Shaw et al** (2003) Mechanism of inhibition of skeletal muscle actomyosin by N-benzyl-p-toluenesulfonamide. *Biochemistry* **42** 6128. PMID: 12755615.

**Cheung et al** (2001) A small-molecule inhibitor of skeletal muscle myosin II. *Nat.Cell.Biol.* **4** 83. PMID: 11744924.

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