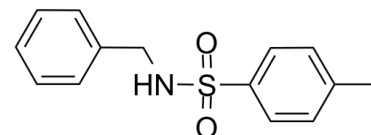


## Data Sheet

Product Name:	BTS
Cat. No.:	CS-3222
CAS No.:	1576-37-0
Molecular Formula:	C <sub>14</sub> H <sub>15</sub> NO <sub>2</sub> S
Molecular Weight:	261.34
Target:	Myosin
Pathway:	Cytoskeleton
Solubility:	H <sub>2</sub> O : < 0.1 mg/mL (insoluble); DMSO : ≥ 33.33 mg/mL (127.54 mM)



### BIOLOGICAL ACTIVITY:

BTS is a potent inhibitor of Ca<sup>2+</sup>-stimulated myosin S1 ATPase (IC<sub>50</sub> ~ 5 μM) and reversibly blocks the gliding motility. IC<sub>50</sub> value: 5 μM Target: Ca<sup>2+</sup>-stimulated myosin S1 ATPase BTS also weakens myosin's interaction with F-actin. BTS is much less effective in suppressing contraction in rat myocardial or rabbit slow twitch muscle and has no effect on platelet myosin II.

### PROTOCOL (Extracted from published papers and Only for reference)

Cell assay [1] HMM was adsorbed to nitrocellulose-coated coverslips in flow-cell chambers at a concentration of 0.1 mg/ml. Chambers were blocked with 0.5 mg/ml casein, and then F-actin that had been stabilized with TRITC-phalloidin was added at a concentration of 20 nM. Motility was initiated by adding 1 mM ATP in assay buffer (20 mM KCl, 10 mM MOPS pH 7.2, 5 mM MgCl<sub>2</sub>, 0.1 mM EGTA, 10 mM DTT, 2.5 mg/ml glucose, 0.1 mg/ml glucose oxidase, 0.02 mg/ml catalase) and filament sliding was recorded at 10 s intervals using a 1.4 NA 60 × lens and a cooled charge-coupled display (CCD) camera. For control, 5C, 20 μM BTS and 2 μM BTS the number of filaments tracked were 63, 27, 51 and 54 respectively in 8, 3, 6 and 5 individual experiments. Rates are expressed as velocity in μm sec<sup>-1</sup> ± standard error.

### References:

[1]. Cheung A, et al. A small-molecule inhibitor of skeletal muscle myosin II. Nat Cell Biol. 2002 Jan;4(1):83-8.

### CAIndexNames:

Benzenesulfonamide, 4-methyl-N-(phenylmethyl)-

### SMILES:

O=S(NCC1=CC=CC=C1)(C2=CC=C(C)C=C2)=O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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