Print Date: Aug 1st 2018

Certificate of Analysis

www.tocris.com

Product Name: **Bumetanide** **Catalog No.: 3108** **Batch No.: 3**

CAS Number: 28395-03-1 EC Number: 249-004-6

IUPAC Name: 3-(Aminosulfonyl)-5-(butylamino)-4-phenoxybenzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{20}N_2O_5S$

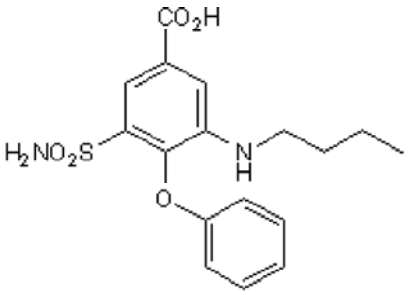
Batch Molecular Weight: 364.42

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 75 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	56.03	5.53	7.69
Found	56.05	5.57	7.57

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Information

Product Name: **Bumetanide** **Catalog No.: 3108** **Batch No.: 3**

CAS Number: 28395-03-1 EC Number: 249-004-6

IUPAC Name: 3-(Aminosulfonyl)-5-(butylamino)-4-phenoxybenzoic acid

Description:

Loop diuretic that inhibits the $Na^+/2Cl^-/K^+$ (NKCC) cotransporter. More potent than furosemide (Cat. No. 3109).

Physical and Chemical Properties:

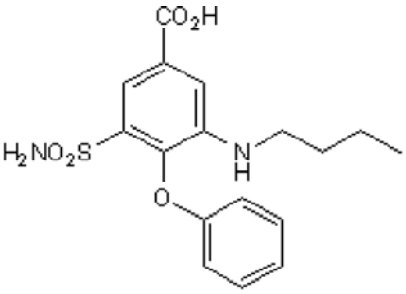
Batch Molecular Formula: $C_{17}H_{20}N_2O_5S$

Batch Molecular Weight: 364.42

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 75 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:

Morita *et al* (1999) Functional evidence for involvement of bumetanide-sensitive $Na^+K^+2Cl^-$ cotransport in the hepatoportal Na^+ receptor of the sprague-dawley rat. Neurosci.Letts. ***264*** 65.

Isenring and Forbush (1997) Ion and bumetanide binding by the Na-K-Cl cotransporter. J.Biol.Chem. ***272*** 24556. PMID: 9305921.

O'Grady *et al* (1987) Characteristics and functions of Na-K-Cl cotransport in epithelial tissues. Am.J.Physiol. ***253*** C177. PMID: 3303961.