Product Name: Penitrem A  
Catalog No.: 4617  
Batch No.: 3

CAS Number: 12627-35-9

IUPAC Name: 2R,3S,3aR,4aS,4bS,6aR,7S,7dR,8R,9aR,14bS,14cR,16aS)-12-chloro-3,3a,6a,8,9,9a,10,11,14,14b,14c,15,16,16a-tetradecahydro-14b,14c,17,17-tetramethyl-10-methylene-2-(1-methylethenyl)-7,8-(epoxymethano)-2H,6H-cyclobuta[5,6]benz[1,2-e]oxireno[4',4'a]-1-benzopyrano[5,6':6,7]indeno[1,2-b]indole-3,4b,7d(5H,7H)-triol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{37}\text{H}_{44}\text{ClNO}_{6} \)

Batch Molecular Weight: 634.2

Physical Appearance: White solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

2. ANALYTICAL DATA

HPLC: Shows 99% purity
**Product Name:** Penitrem A  
**CAS Number:** 12627-35-9  
**IUPAC Name:** 2\(\text{R},3\text{S},3\text{aR},4\text{bS},6\text{aR},7\text{S},7\text{dR},8\text{R},9\text{aR},14\text{bS},14\text{cR},16\text{aS})\)-12-chloro-3,3a,6a,8,9,9a,10,11,14,14b,14c,15,16,16a-tetradecahydro-14b,14c,17,17-tetramethyl-10-methylene-2-(1-methylethenyl)-7,8-(epoxymethano)-2\(\text{H},6\text{H}\)-cyclobuta[5,6]benz[1,2-e]oxireno[4',4'\(\text{a}\)]-1-benzopyrano[5',6':6,7]indenon[1,2-\(\text{b}\)]indole-3,4b,7d(5\(\text{H},7\text{H}\))-triol

**Description:**  
Potent and selective blocker of BK\(_{\text{Ca}}\) (K\(_{\text{Ca}}\)1.1) channels (IC\(_{50}\) values are 6.4 and 64.4 nM for BK\(_{\text{Ca}}\) channels containing \(\alpha\) subunits only, and those containing \(\alpha\) and \(\beta1\) respectively). Displays no effect on native delayed rectifier K\(^+\) and K\(_{\text{ATP}}\) currents, or cloned K\(_{\text{v}}\)1.5 channels. Blocks BK\(_{\text{Ca}}\) channels in both inside-out and cell-attached patches. Shown to enhance smooth muscle contraction in vitro and increase total peripheral resistance in vivo.  

**Physical and Chemical Properties:**  
- **Batch Molecular Formula:** C\(_{37}\)H\(_{44}\)ClNO\(_6\)  
- **Batch Molecular Weight:** 634.2  
- **Physical Appearance:** White solid  

Minimum Purity: \(\geq 98\%\)

**Storage:** Store at \(-20^\circ\text{C}\)  
CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.  

**Solubility & Usage Info:**  
DMSO to 10 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\(^\circ\text{C}\) 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 \(-20^\circ\text{C}\) or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**  

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**Print Date:** Aug 1\(^{\text{st}}\) 2017