

## Certificate of Analysis

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**Product Name:** LM 22A4

**Catalog No.:** 4607

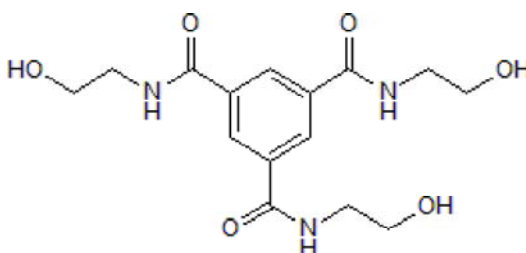
**Batch No.:** 2

CAS Number: 37988-18-4

IUPAC Name: *N,N,N'*Tris(2-hydroxyethyl)-1,3,5-benzenetricarboxamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>15</sub>H<sub>21</sub>N<sub>3</sub>O<sub>6</sub>  
**Batch Molecular Weight:** 339.34  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 water to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.1% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	53.09	6.24	12.38
Found	52.89	6.24	12.27

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 37988-18-4

IUPAC Name: *N,N,N'*Tris(2-hydroxyethyl)-1,3,5-benzenetricarboxamide

**Description:**

Potent tropomyosin-related kinase B (TrkB) agonist. Induces activation of Trk, Akt and ERK in mouse hippocampus and striatum and exhibits neurotrophic activity. Reverses deficits in motor task learning in mice following traumatic brain injury; restores respiratory function in a rat model of Rett syndrome.

**Physical and Chemical Properties:**

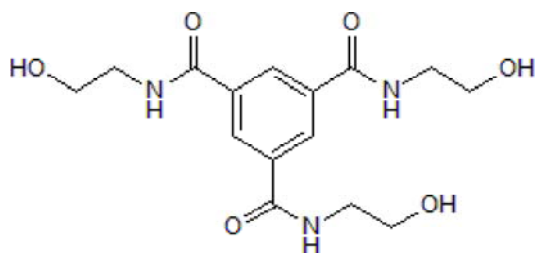
Batch Molecular Formula: C<sub>15</sub>H<sub>21</sub>N<sub>3</sub>O<sub>6</sub>

Batch Molecular Weight: 339.34

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Schmid *et al*** (2012) A TrkB small molecule partial agonist rescues TrkB phosphorylation deficits and improves respiratory function in a mouse model of Rett syndrome. *J.Neurosci.* **32** 1803. PMID: 22302819.

**Massa *et al*** (2010) Small molecule BDNF mimetics activate TrkB signaling and prevent neuronal degeneration in rodents. *J.Clin.Invest.* **120** 1774. PMID: 20407211.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

water 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.

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