



# **Certificate of Analysis**

www.tocris.com

Product Name: EGTA Catalog No.: 2807 Batch No.: 5

CAS Number: 67-42-5 EC Number: 200-651-2

IUPAC Name: Ethylene glycol-bis(2-aminoethylether)-N,N,N',N'-tetraacetic acid

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{14}H_{24}N_2O_{10}.{}^{1}_{4}H_2O$ 

**Batch Molecular Weight:** 384.85 **Physical Appearance:** White solid

Solubility: 1M NaOH to 100 mM

Storage: Store at RT

Batch Molecular Structure:

#### 2. ANALYTICAL DATA

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 43.69 6.42 7.28 Found 43.15 6.49 7.13



## **Product Information**

Print Date: Dec 12th 2023

www.tocris.com

Product Name: EGTA Catalog No.: 2807 5

CAS Number: 67-42-5 EC Number: 200-651-2

IUPAC Name: Ethylene glycol-bis(2-aminoethylether)-N,N,N',N'-tetraacetic acid

#### **Description:**

EGTA is a calcium chelator; protects against cell death caused by nitric oxide-induced calcium influx into nerve cells.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>14</sub>H<sub>24</sub>N<sub>2</sub>O<sub>10</sub>. <sup>1</sup>/<sub>4</sub>H<sub>2</sub>O

Batch Molecular Weight: 384.85 Physical Appearance: White solid

#### **Batch Molecular Structure:**

Storage: Store at RT

#### Solubility & Usage Info:

1M NaOH to 100 mM

Note on solubility: this product is insoluble in water at room temperature. However, it becomes much more soluble as the pH increases. This can be achieved by gradual addition of a concentrated solution of aqueous sodium hydroxide. The solubility at pH 9 is >100mM.

## 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

**Fisher** *et al* (2004) Catalytic superoxide scavenging by metal complexes of the calcium chelator EGTA and contrast agent EHPG. Biochem.Biophy.Res.Comms. *323* 163.

**Boullerne** *et al* (2001) Role of calcium in nitric oxide-induced cytotoxicity: EGTA protects mouse oligodendrocytes. J.Neurosci.Res. *63* 124. PMID: 11169622.

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