

## Certificate of Analysis

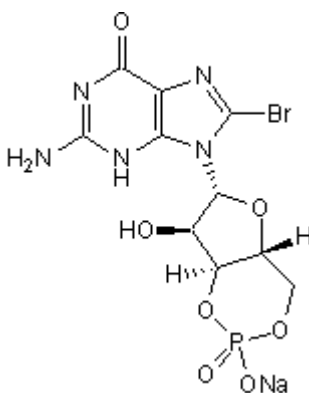
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**Product Name:** 8-Bromo-cGMP, sodium salt  
**CAS Number:** 51116-01-9  
**IUPAC Name:** 8-Bromoguanosine cyclic 3',5'-monophosphate sodium salt

**Catalog No.:** 1089  
**Batch No.:** 8  
**EC Number:** 256-993-8

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>10</sub>H<sub>10</sub>BrN<sub>5</sub>NaO<sub>7</sub>P.H<sub>2</sub>O  
**Batch Molecular Weight:** 464.11  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	25.88	2.61	15.09
Found	25.63	2.77	14.81

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**Description:**

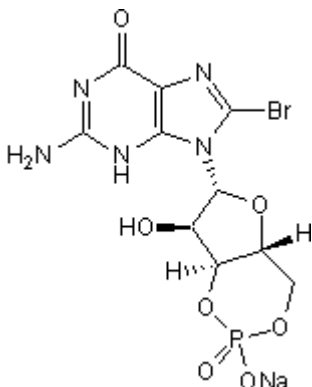
Membrane permeable cGMP analog that activates protein kinase G (PKG). 4.3-fold more potent than cGMP in activating PKG1 $\alpha$  and promotes relaxation of tracheal and vascular smooth muscle tissue in vitro.

**Physical and Chemical Properties:**

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**Batch Molecular Weight:** 464.11  
**Physical Appearance:** White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

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.

**References:**

- Sekhar et al** (1992) Relaxation of pig coronary arteries by new and potent cGMP analogs that selectively activate type 1 $\alpha$ , compared with type 1 $\beta$ , cGMP-dependent protein kinase. *Mol.Pharmacol.* **42** 103. PMID: 1321950.
- Buchan et al** (1991) Modulation of agonist-induced calcium mobilisation in bovine aortic endothelial cells by phorbol myristate acetate and cyclic AMP but not cyclic GMP. *Br.J.Pharmacol.* **104** 361. PMID: 1665733.
- Ignarro et al** (1974) Stimulation of phagocytic release of neutral protease from human neutrophils by cholinergic amines and cyclic 3',5'-guanosine monophosphate. *J.Immunol.* **112** 210. PMID: 4359834.

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