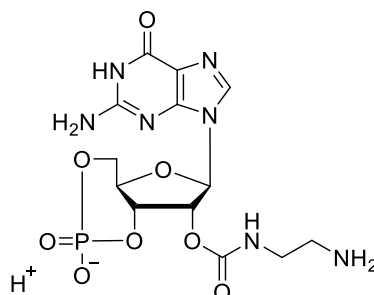


## Technical Information about 2'- O- (2- Aminoethylcarbamoyl)- cGMP (2'-AEC-cGMP)

Update: August 23, 2018 HJ



**Abbreviation:** **2'-AEC-cGMP / EDA-cGMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>13</sub> H <sub>18</sub> N <sub>7</sub> O <sub>8</sub> P	[pending]	431.3	λ <sub>max</sub> 252 nm / ε 13500 / pH 7	A 075

**Name:** 2'- O- (2- Aminoethylcarbamoyl)guanosine- 3', 5'- cyclic monophosphate (2'-AEC-cGMP / EDA-cGMP)

**Description:** 2'-AEC-cGMP is an analogue of the natural signal molecule cyclic GMP in which an ethyl spacer with a terminal amino group has been attached to the ribose 2'-hydroxy group by a carbamate bond.

### Properties:

- Analogue of cyclic GMP prepared to be coupled to various structures including proteins,
- ligand for immobilization to yield affinity gels,
- also suitable for conjugation with fluorescent dyes or labels.

In spite of its modification, 2'-AEC-cGMP could be still sensitive against phosphodiesterases. For corresponding PDE-resistant structures, such as phosphorothioate-modified congeners, please inquire. BIOLOG also offers 2'-O-(6-Aminoethylcarbamoyl)-cGMP in which a longer hexyl spacer with a terminal amino group has been attached to the ribose 2'-hydroxy group by a carbamate bond (2'-AHC-cGMP, Cat. No. A 048). 2'-O-Monosuccinyl-cGMP which has a terminal carboxy group for reaction with amino and hydroxy group-containing structures is available as well (2'-O-MS-cGMP, Cat. No. M 015).

**Specification:** Crystallized or lyophilized solid. Please keep in mind that equal concentrations of the compound may look different in volume. Micro molar quantities are determined by UV at λ<sub>max</sub>.

**Purity:** Typical analysis is better than 98% (HPLC / UV / 252 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** 2'-AEC-cGMP is readily soluble in water or buffer. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

**Stability and Storage:** 2'-AEC-cGMP is chemically rather stable. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

**Toxicity and Safety:** Since cyclic GMP has multiple tasks in every organism, it is very likely that cGMP analogues will interfere with many cell regulation processes *in vivo*. However, due to the rather small quantities to work with, no health hazards have been reported. Nevertheless please keep in mind, that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product.

Our products are designed, developed and sold for research purposes only! They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities.

**Not for drug, household or related uses!**

**References for 2'-AEC-cGMP:**

Corrie, J.E.T; Pizza, C.; Makwana, J.; King, R.W., *Prot. Express. Purif.*, **3**, 417 - 420 (1992): "Preparation and Properties of an Affinity Support for Purification of Cyclic AMP Receptor Protein from *Escherichia coli*"