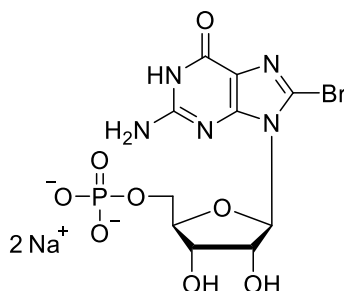


Technical Information about 8-Br-5'-GMP

Update: October 02, 2018 HU



Abbreviation: **8-Br-5'-GMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₃ BrN ₅ O ₈ P (free acid)	[21870-09-7]	442.1 (free acid)	λ _{max} 260 nm / ε 16200 / pH 7	B 057

Name: 8- Bromoguanosine- 5'- O- monophosphate

Description: 8-Br-5'-GMP is an analogue of guanosine-5'-O-monophosphate (5'-GMP) in which the hydrogen in position 8 of the guanine nucleobase has been replaced by bromine.

Properties: 8-Br-5'-GMP is an analogue of 5'-GMP with changed syn/anti ratio for receptor mapping studies. It is also suitable as starting structure for 8-modified 5'-GMP derivatives.

Specification: Crystallized or lyophilized sodium salt. Please keep in mind that equal concentrations of the compound may look different in volume due to sensitivity of the lyophilized form to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 97% (HPLC / UV / 260 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 8-Br-5'-GMP is readily soluble in water (> 22 mM) or buffer systems. 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: 8-Br-5'-GMP has sufficient stability for short term exposure to ambient temperature and does not need special care during handling or shipment. 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 5'-GMP has multiple tasks in every organism, it is not unlikely that its 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!

Selected References for 8-Br-5'-GMP:

Collier, A.; Wagner, G., *Org. Biomol. Chem.*, **4**, 4526 - 4532 (2006): "A Facile Two-Step Synthesis of 8-Arylated Guanosine Mono- and Triphosphates (8-Aryl GXPs)"

Lassota, P.; Stolarski, R.; Shugar, D., *Z. Naturforsch. C*, **39**, 55 - 63 (1984): "Conformation about the Glycosidic Bond and Susceptibility to 5'-Nucleotidase of 8-Substituted Analogues of 5'-GMP"