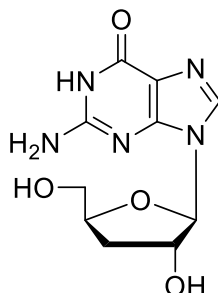


Technical Information about 3'- Deoxyguanosine

Update: September 21, 2018 HJ



Abbreviation:

3'-dG

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₃ N ₅ O ₄	[3608-58-0]	267.3	λ _{max} 252 nm / ε 13500 / pH7	D 041

Name: 3'- Deoxyguanosine

Description: 3'-dG is an analogue of guanosine in which the 3'- hydroxy group has been substituted by hydrogen.

Properties: Analogue of potential interest in antiviral and anti-amoebic research and starting structure for synthesis of corresponding di- and triphosphates.

Specification: Crystallized or lyophilized solid. Please keep in mind that equal amounts 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} or by weight.

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

Solubility: Due to its increased lipophilicity the solubility of 3'-dG in water or buffer is limited. 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: 3'-dG has sufficient stability at room 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 guanosine has multiple tasks in every organism, it is very likely that lipophilic 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 3'-dG:

Ghosal, S.; Prasad, B.N.K.; Khanna, M.; Dwivedi, A.K.; Singh, S.; Kumar, A.; Katti, S.B., *Int. J. Pharm.*, **194**, 15 - 20 (2000): "3'-Deoxyribonucleosides and their Derivatives as Anti-Amoebic Agents"

Nakatsugawa, S., *Intl. J. Rad. Oncol. Biol. Phys.*, **10**, 1425 - 1430 (1984): "The Role in Cancer Therapy of Inhibiting Recovery from PLD Induced by Radiation or Bleomycin"

Jenkins, S.R.; Holly, F.W.; Walton, E., *J. Org. Chem.*, **30**, 2851 - 2852 (1965): "3'-Deoxynucleosides. III. 3'-Deoxyguanosine"