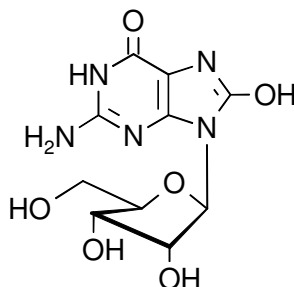


Technical Information about 8- Hydroxyguanosine

Update: October 04, 2007 TR



Abbreviation:

8-OH-Guo

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₃ N ₅ O ₆	[3868-31-3]	299.2	λ_{max} 245/293 nm / ϵ 12300/10300 / pH7	H 001

Name: 8-Hydroxyguanosine; 8-oxoguanosine

Description: 8-Hydroxyguanosine is an analogue of guanosine where the hydrogen in position 8 of the nucleobase is replaced by a hydroxy group.

Properties: Reference for analysis of oxidative stress RNA hydrolysates. For related nucleosides and nucleotides please inquire.

Specification: Crystallized or lyophilized solid. Please keep in mind that equal amounts of the compound may look different in volume depending on humidity. Micromolar quantities are determined by UV at 245 nm.

Purity: Typical analysis is better than 98% (HPLC / UV / 245 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 8-Hydroxyguanosine has limited solubility in water or buffer. Sometimes, gentle heating is necessary to obtain clear solutions, also basic pH facilitates dissolution. When opening the tube please make sure that no substance is lost within the cap. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.

Stability and Storage: 8-Hydroxyguanosine 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 its analogues will interfere with many cell regulation processes *in vivo* as well. 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 8-OH-Guo:

- 1 Kuo, ML.; Jee, SH.; Chou, MH.; Ueng, TH., *Mutat. Res. Genet. Toxicol. Environ. Mutagen.*, **413**, 143 - 150 (1998): "Involvement of Oxidative Stress in Motorcycle Exhaust Particle-induced DNA Damage and Inhibition of Intercellular Communication"