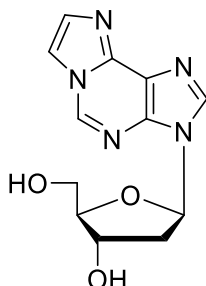


Technical Information about ϵ -dAdo

Fluorescent analogue of 2'-deoxyadenosine

Update: September 21, 2018 HU



Abbreviation:

ϵ -dAdo

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₂ H ₁₃ N ₅ O ₃	[68498-25-9]	275.3	λ_{max} 275 nm / ϵ 6000 / pH 7	D 080

Name: 2'-Deoxy- 1, N⁶- ethenoadenosine

Description: ϵ -dAdo is an analogue of 2'-deoxyadenosine in which both the N¹ and the N⁶ nitrogen atoms in the adenine nucleobase are connected by an etheno bridge forming a tricyclic ring system.

Properties: ϵ -dAdo is a fluorescent analogue of 2'-deoxyadenosine with λ_{exc} 300 nm and λ_{em} 410 nm at pH 7.

Specification: Crystallized or lyophilized solid. 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 / 275 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: ϵ -dAdo is soluble to at least 15 mM in water. 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: If protected from light ϵ -dAdo 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 2'-deoxyadenosine has multiple tasks in every organism it is very likely 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 ϵ -dAdo:

Srivastava, S.C.; Raza, S.K.; Misra, R., *Nucl. Acids Res.*, **22**, 1296 - 1304 (1994): "1,N⁶-Etheno Deoxy and Ribo Adenosine and 3,N⁴-Etheno Deoxy and Ribo Cytidine Phosphoramidites. Strongly Fluorescent Structures for Selective Introduction in Defined Sequence DNA and RNA Molecules"

Eberle, G.; Barbin, A.; Laib, R.J.; Ciroussel, F.; Thomale, J.; Bartsch, H.; Rajewsky, M.F., *Carcinogenesis*, **10**, 209 - 212 (1989): "1,N⁶-Etheno-2'-deoxyadenosine and 3,N⁴-Etheno-2'-deoxycytidine Detected by Monoclonal Antibodies in Lung and Liver DNA of Rats Exposed to Vinyl Chloride"