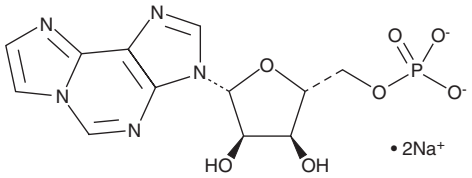
PRODUCT INFORMATION

1,N^6-Ethenoadenosine 5'-monophosphate (sodium salt)

Item No. 21227

CAS Registry No.: 885597-18-2
Formal Name: 3-(5-O-phosphono-β-D-ribofuranosyl)-3H-imidazo[2,1-i]purine, disodium salt
Synonyms: 1,N^6-ε-AMP, 1,N^6-Etheno-AMP
MF: $C_{12}H_{12}N_5O_7P$ • 2Na
FW: 415.2
Purity: ≥97%
UV/Vis.: λ_{max}: 275 nm
Ex./Em. Max: 250-300/415 nm
Supplied as: A lyophilized solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1,N^6-Ethenoadenosine 5'-monophosphate (1,N^6-ε-AMP) is supplied as a lyophilized solid. A stock solution may be made by dissolving the 1,N^6-ε-AMP in the solvent of choice. 1,N^6-ε-AMP is partly miscible in water.

Description

1,N^6-ε-AMP is a highly fluorescent analog of adenosine 5'-monophosphate (AMP; Item No. 21094).[1,2] 1,N^6-ε-AMP is characterized by a long fluorescent lifetime, detectability at low concentration, a relatively long wavelength of excitation (250-300 nm), and emission at 415 nm.[2-4] 1,N^6-ε-AMP can be used in assays of 5'-nucleotidase activity.[5,6]

References

1. Jahnz-Wechmann, Z., Framski, G.R, Januszczyk, P.A., *et al.* Base-modified nucleosides: Etheno derivatives. *Front. Chem.* **4**, 19 (2016).
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3. Penzer, G.R. The solution conformation and some spectroscopic properties of 1,N^6-ethenoadenosine monophosphate, a fluorescent analogue of AMP. *Eur. J. Biochem.* **34(2)**, 297-305 (1973).
4. Spencer, R.D., Weber, G., Tolman, G.L., *et al.* Species responsible for the fluorescence of 1:N^6-ethenoadenosine. *Eur. J. Biochem.* **45(2)**, 425-429 (1974).
5. Jamaz, Z., Afkham-Ebrahimi, A., and Saggerson, E.D. A novel assay for 5'-nucleotidase using 1,N^6-etheno-AMP as substrate, and comments on the properties of the reaction product, ethenoadenosine. *Biochem J.* **250(2)**, 369-373 (1988).
6. Pexa, A., and Deussen, A. Modulation of ecto-5'-nucleotidase by phospholipids in human umbilical vein endothelial cells (HUVEC). *Naunyn-Schmiedeberg's Arch. Pharmacol.* **372(2)**, 131-138 (2005).

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