Technical Information about 2'-Deoxy-N^6-(2-phenylethyl)-ATP

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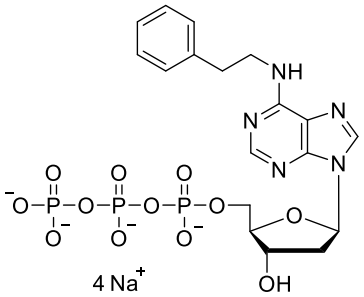

Abbreviation: **6-PhEt-dATP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{18}H_{24}N_5O_{12}P_3$ for free adic	[1239610-11-7]	595.3 for free acid	λ_{max} 269 nm / ε 20500 / pH 7	D 104

Name: 2'- Deoxy- N^6- (2- phenylethyl)adenosine- 5'- O- triphosphate

Description: 6-PhEt-dATP is an analogue of 2'-deoxyadenosine-5'-O-triphosphate (dATP) in which one hydrogen of the 6-amino group has been substituted by a phenylethyl moiety.

Properties: 6-PhEt-dATP is useful in studies of Cystic fibrosis transmembrane conductance regulator (CFTR) gating. It potentiates the activity of disease-associated CFTR channel mutants (Miki et al. 2010, Jih et al. 2011).

Specification: Sodium salt in aqueous solution (10 mM). Other salt forms of 6-PhEt-dATP are available upon request. Micromolar quantities are determined by UV at $\lambda_{max.}$ When opening the tube please make sure that no liquid is lost within the cap. A short spin-down in a bench centrifuge is recommended before use.

Purity: Typical purity is better than 95% (HPLC / UV / 269 nm) at time of quality control and packing. The product is not sterile and has not been tested for endotoxins.

Stability and Storage: 6-PhEt-dATP is relatively stable when stored frozen in aqueous solution (- 20° Celsius necessary, - 80° recommended). In order to maintain its original high quality, and especially if you want to avoid any decomposition, it is recommended to allow thawing only before using the product. If you will not use up the vial with one application, please aliquot the contents of the vial in order to avoid repeated freeze/thaw cycles for the rest. When making such aliquots be sure to operate quickly and to freeze the vial again as soon as possible.

Toxicity and Safety: Since nucleoside triphosphates have multiple tasks in every organism, it is very likely that dATP 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 6-PhEt-dATP:

Jih, K.-Y.; Li, M.; Hwang, T.-C.; Bompadre, S.G., *J. Physiol.*, **589**, 2719 - 2731 (2011): "The Most Common Cystic Fibrosis-associated Mutation Destabilizes the Dimeric State of the Nucleotide-binding Domains of CFTR"

Miki, H.; Zhou, Z.; Li, M.; Hwang, T.-C.; Bompadre, S.G., *J.Biol.Chem.*, **285**, 19967 - 19975 (2010): "Potentation of Disease-associated CFTR Mutants by Hydrolyzable ATP Analogs"

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