

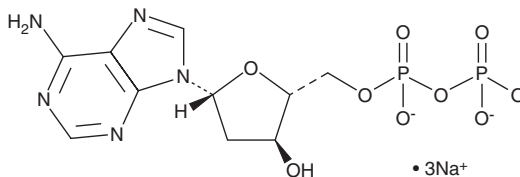
PRODUCT INFORMATION



2'-Deoxyadenosine-5'-O-diphosphate (sodium salt)

Item No. 36195

CAS Registry No.: 402491-35-4
Formal Name: 2'-deoxy-adenosine 5'-(trihydrogen diphosphate), trisodium salt
Synonyms: dADP, 2'-deoxy-ADP
MF: C₁₀H₁₂N₅O₉P₂ • 3Na
FW: 477.2
Purity: ≥95%
UV/Vis.: λ_{max}: 260 nm
Supplied as: A 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

2'-Deoxyadenosine-5'-O-diphosphate (dADP) (sodium salt) is supplied as a solid. Aqueous solutions of dADP (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of dADP (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

dADP is a purine nucleotide diphosphate.¹ It inhibits the polymerization of ADP and CDP by *E. coli* or *P. fluorescens* polynucleotide phosphorylase when used at a concentration of 0.23 mM.² dADP levels are increased in erythrocytes isolated from patients with adenosine deaminase (ADA) deficiency, an inborn error of metabolism characterized by severe combined immunodeficiency (SCID).³

References

1. Berg, J.M., Tymoczko, J.L., and Stryer, L. Nucleotide biosynthesis. *Biochemistry*. 5th edition, W.H. Freeman (2002).
2. Lucas-Lenard, J.M. and Cohen, S.S. The inhibition of polynucleotide phosphorylase by certain substrate analogues. *Biochim. Biophys. Acta* **123(3)**, 471-477 (1966).
3. Coleman, M.S., Donofrio, J., Hutton, J.J., et al. Identification and quantitation of adenine deoxynucleotides in erythrocytes of a patient with adenosine deaminase deficiency and severe combined immunodeficiency. *J. Biol. Chem.* **253(5)**, 1619-1626 (1978).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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