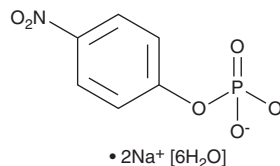


PRODUCT INFORMATION

4-Nitrophenyl Phosphate (sodium salt hydrate)

Item No. 34081

CAS Registry No.: 333338-18-4
Formal Name: phosphoric acid, mono(4-nitrophenyl) ester, disodium salt, hexahydrate
Synonyms: *p*-Nitrophenyl Phosphate, *para*-Nitrophenyl Phosphate, 4-NPP, *p*NPP
MF: $C_6H_4NO_6P \cdot 2Na [6H_2O]$
FW: 371.1
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 222, 306 nm
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 2 years



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

Laboratory Procedures

4-Nitrophenyl phosphate (*p*NPP) (sodium salt hydrate) is supplied as a solid. A stock solution may be made by dissolving the *p*NPP (sodium salt hydrate) in the solvent of choice, which should be purged with an inert gas. *p*NPP (sodium salt hydrate) is soluble in the organic solvent ethanol at a concentration of approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of *p*NPP (sodium salt hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of *p*NPP (sodium salt hydrate) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

*p*NPP is a chromogenic substrate for alkaline phosphatase.¹ Upon hydrolysis by alkaline phosphatase, 4-nitrophenol is released, which can be quantified by colorimetric detection at 405 nm as a measure of alkaline phosphatase activity. It has been commonly used in ELISAs.

Reference

1. Lorenz, U. Protein tyrosine phosphatase assays. *Curr. Protoc. Immunol.* **93**, 11.7.1-11.7.12 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

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