

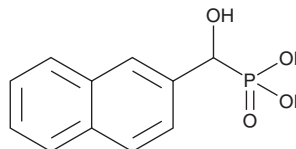
# PRODUCT INFORMATION



## HNMPA

Item No. 15543

**CAS Registry No.:** 132541-52-7  
**Formal Name:** P-(hydroxy-2-naphthalenylmethyl)-phosphonic acid  
**Synonym:** Hydroxy-2-naphthalenylmethyl Phosphonic Acid  
**MF:** C<sub>11</sub>H<sub>11</sub>O<sub>4</sub>P  
**FW:** 238.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 228 nm  
**Supplied as:** A crystalline 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

HNMPA is supplied as a crystalline solid. A stock solution may be made by dissolving the HNMPA in the solvent of choice. HNMPA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of HNMPA in these solvents is approximately 20, 1, and 15 mg/ml, respectively.

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 HNMPA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of HNMPA in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

HNMPA is a cell impermeable tyrosine kinase inhibitor that blocks receptor serine and tyrosine phosphorylation, including insulin receptor tyrosine kinase activity.<sup>1</sup> It does not affect protein kinase C or cyclic AMP-dependent protein kinase activities.<sup>1</sup> HNMPA inhibits the insulin-stimulated autophosphorylation of the 95-kDa β-subunit of the insulin receptor with an IC<sub>50</sub> value of 200 μM *in vitro*.<sup>1</sup>

### Reference

1. Baltensperger, K., Lewis, R.E., Woon, C.-W., *et al.* Catalysis of serine and tyrosine autophosphorylation by the human insulin receptor. *Proc. Natl. Acad. Sci. USA* **89**(17), 7885-7889 (1992).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/18/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM