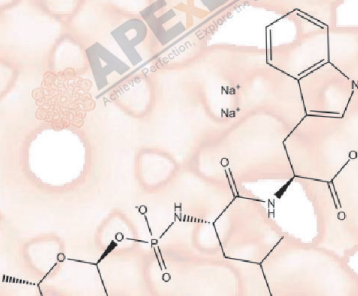


# Product Data Sheet

## Phosphoramidon Disodium Salt

Cat. No.:	B4790
CAS No.:	164204-38-0
Formula:	C <sub>23</sub> H <sub>32</sub> N <sub>3</sub> Na <sub>2</sub> O <sub>10</sub> P
M.Wt:	587.47
Synonyms:	
Target:	Proteases
Pathway:	Other Proteases
Storage:	Desiccate at -20°C



### Solvent & Solubility

≥58.7mg/mL in DMSO

In Vitro

	Solvent Concentration	Mass	1mg	5mg	10mg
Preparing Stock Solutions	1 mM		1.7022 mL	8.5111 mL	17.0221 mL
	5 mM		0.3404 mL	1.7022 mL	3.4044 mL
	10 mM		0.1702 mL	0.8511 mL	1.7022 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

metalloproteinase inhibitor

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line:	ECs isolated from fresh porcine thoracic aortas
Preparation method:	The solubility of this compound in DMSO is >10mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	10- 7-10-4 M
Applications:	In ECs, phosphoramidon (10- 7-10-4 M) suppressed dose-dependently the

apparent converting activity of the membrane fraction and suppressed the membrane fraction induced apparent conversion of big ET-I to ET-I ( Endothelin-1 ). ET-I is a 21 amino acid peptide isolated from the culture medium of vascular endothelial cells (ECs), the secretion of ET-I from cultured ECs was abolished by the addition of phosphoramidon.

#### Animal experiment

Animal models:	Wild-type mice, NEP/NEP2-deficient mice
Dosage form:	24 µl (30 mM) once per day for 5 days.
Applications:	Intranasal administration of phosphoramidon produced significantly elevated cerebral Aβ (Beta-amyloid peptide) levels in wild-type mice. In NEP/NEP2-deficient mice, Aβ levels were significantly elevated by phosphoramidon, in the absence of NEP (Aβ degrading enzymes) and NEP2, phosphoramidon clearly elevates Aβ1–40 levels relative to Aβ1–42 levels. NEP and NEP2 may be the major “NEP-like” Aβ1–42-degrading (phosphoramidon-sensitive) enzymes in the rodent brain.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

In Vivo

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Matsumura Y, Ikegawa R, Hisaki K., et al. Conversion of big endothelin-1 to endothelin-1 by phosphoramidon-sensitive metalloproteinase derived from aortic endothelial cells. J Cardiovasc Pharmacol, 1991, 17 Suppl 7: S65-7.
- [2] . Hanson LR., et al. Intranasal phosphoramidon increases beta-amyloid levels in wild-type and NEP/NEP2-deficient mice. J MolNeurosci. 2011 Mar;43(3):424-7.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



## APExBIO Technology

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