# Certificate of Analysis



**Product Name:** **Phosphoramidon disodium salt** **Catalog No.: 6333** **Batch No.: 5**

CAS Number: 164204-38-0

IUPAC Name: *N*-[*N*-[[(6-Deoxy-α-L-mannopyranosyl)oxy]hydroxyphosphinyl]-L-leucyl]-L-tryptophan disodium salt

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{23}H_{32}N_3Na_2O_{10}P$

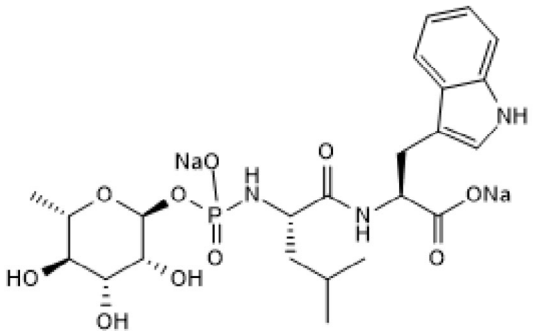
**Batch Molecular Weight:** 587.47

**Physical Appearance:** White solid

**Solubility:** water to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**HPLC:** Shows 99.1% purity

**Mass Spectrum:** Consistent with structure

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**Description:**

Phosphoramidon disodium salt is a neutral endopeptidase (neprilysin) inhibitor. Blocks degradation of amyloid β peptides and increases Aβ levels in rodents. Also blocks endothelin converting enzyme (ECE).

**Physical and Chemical Properties:**

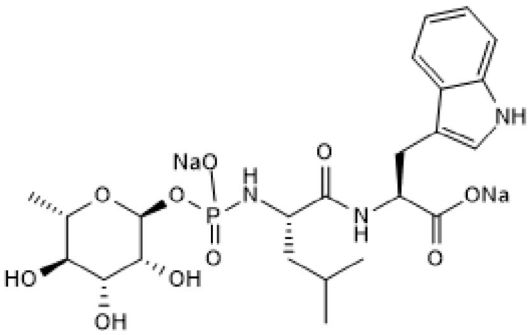
Batch Molecular Formula: $C_{23}H_{32}N_3Na_2O_{10}P$

Batch Molecular Weight: 587.47

Physical Appearance: White solid

**Minimum Purity:** ≥95%

**Batch Molecular Structure:**




**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 100 mM

This compound is hygroscopic and may absorb atmospheric moisture during prolonged storage, causing the solid to become sticky and/or collapse into a gel or glass-like form. Although purity is unaffected, it may be difficult to extract the full quantity from the vial. In such a situation, we recommend that solutions are made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Marr and Hafez** (2014) Amyloid-beta and Alzheimer's disease: the role of neprilysin-2 in amyloid-beta clearance. Front.Aging Neurosci. ***6*** 187. PMID: 25165447.

**Shirotani** *et al* (2001) Neprilysin degrades both amyloid β peptides 1-40 and 1-42 most rapidly and efficiently among thiorphan- and phosphoramidon-sensitive endopeptidases. J.Biol.Chem. ***276*** 21895. PMID: 11278416.

**Warner** *et al* (1992) Regional differences in endothelin converting enzyme activity in rat brain: inhibition by phosphoramidon and EDTA. Br.J.Pharmacol. ***106*** 948. PMID: 1393292.