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## Sodium Orthovanadate (Vanadate); Activated, Ready-to-Use Solution

**Part No.** ActVO-4 (200 mM). Volumes: 6 ml, 12 ml, 20 ml, 30 ml, 50 ml



**Synonyms:** Sodium Vanadate, Vanadate

**Specifications:**

Chemical Formula:  $\text{Na}_3\text{VO}_4$

CAS Number: 13721-39-6

Purity of starting material: >99%

Molecular Weight: 183.9

Solubility in water: soluble

Provided as: 200 mM aqueous solution

Inhibitor of tyrosyl-phosphatases, alkaline phosphatases and Na,K,ATPases, including MDR (multidrug resistance receptor; P-glycoprotein)

Lot 26721-1 Exp. 5/21

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Sodium orthovanadate is a potent inhibitor of tyrosine phosphatases, alkaline phosphatases and ATPases by operating as a phosphate analogue. Part ActVO-4 has undergone an activation-depolymerization preparation that involves pH adjustment, heating until colorless at equilibrium at pH 10.0, and filtering<sup>1,2</sup>.

Activated sodium orthovanadate is added directly to cell lysis buffers to inhibit tyrosyl-phosphatases and preserve protein phosphorylation.

**Directions:** Provided as a 200 mM solution. Use at 1-10 mM. Dispense directly into cell lysates. (After defrosting, vortex to solubilize crystals).

### References

1. Gordon, J.: *Methods Enzymol.* (1991) 201, 477-482.
2. Huyer, G., et al.: *J. Biol. Chem.* (1997) 272, 843-851.

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Safety: Harmful. Avoid all contact and inhalation.

Shipping: Ambient temperature

Storage: -20°C upon arrival.

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Inhibitor of tyrosyl-phosphatases, alkaline phosphatases and Na,K,ATPases, including MDR (multidrug resistance receptor; P-glycoprotein)

Lot 26718-1 Exp. 12/19

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