
Specification Sheet: 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: Na_3VO_4

CAS Number: 13721-39-6

Purity: >98%

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 26718-9 Exp. 6/16

Sodium orthovanadate (activated) is a potent inhibitor of tyrosine phosphatases, alkaline phosphatases and ATPases by operating as a phosphate analogue. ActVO-4 has undergone an activation-depolymerization preparation that involves pH adjustment, heating until colorless at equilibrium at pH 10.0, and filtering^{1,2}.

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.

Lot 26718-9 Exp. 6/16

Safety: Harmful. Avoid all contact and inhalation.

Storage: -20°C upon arrival.

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Provided as: 200 mM aqueous solution

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

Lot 26717-9 Exp. 12/15

Sodium orthovanadate (activated) is a potent inhibitor of tyrosine phosphatases, alkaline phosphatases and ATPases by operating as a phosphate analogue. ActVO-4 has undergone an activation-depolymerization preparation that involves pH adjustment, heating until colorless at equilibrium at pH 10.0, and filtering^{1,2}.

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.

Lot 26717-9 Exp. 12/15

Safety: Harmful. Avoid all contact and inhalation.

Storage: -20°C upon arrival.

Specification Sheet: Sodium Orthovanadate (Vanadate); Activated, Ready-to-Use Solution



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

Synonyms: Sodium Vanadate, Vanadate

Specifications:

Chemical Formula: Na_3VO_4

CAS Number: 13721-39-6

Concentration: 200 mM. Formulated from >99% solid stock.

Molecular Weight: 183.9

Solubility in water: soluble

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

Sodium orthovanadate (activated) is a potent inhibitor of tyrosine phosphatases, alkaline phosphatases and ATPases by operating as a phosphate analogue. ActVO-4 has undergone an activation-depolymerization preparation that involves pH adjustment, heating until colorless at equilibrium at pH10.0, and filtering^{1,2}.

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 mM. Dispense directly into cell lysates. (After defrosting, vortex to solubilize crystals).

Certain buffer components such as EDTA and oxidants interact with vanadate potency. The addition of EDTA chelates vanadate and reverses inhibition. HEPES is a preferred buffer to minimize interference with vanadate (see reference 2).

References

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

Lot 26716-4, Exp 6/15

Safety: Harmful. Avoid all contact and inhalation.
Storage: -20°C upon arrival.

Specification Sheet: Sodium Orthovanadate (Vanadate); Activated, Ready-to-Use Solution



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

Synonyms: Sodium Vanadate, Vanadate

Specifications:

Chemical Formula: Na_3VO_4

CAS Number: 13721-39-6

Concentration: 200 mM. Formulated from >99% solid stock.

Molecular Weight: 183.9

Solubility in water: soluble

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

Sodium orthovanadate (activated) is a potent inhibitor of tyrosine phosphatases, alkaline phosphatases and ATPases by operating as a phosphate analogue. ActVO-4 has undergone an activation-depolymerization preparation that involves pH adjustment, heating until colorless at equilibrium at pH10.0, and filtering^{1,2}.

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 mM. Dispense directly into cell lysates. (After defrosting, vortex to solubilize crystals).

Certain buffer components such as EDTA and oxidants interact with vanadate potency. The addition of EDTA chelates vanadate and reverses inhibition. HEPES is a preferred buffer to minimize interference with vanadate (see reference 2).

References

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

Lot 26715-4, Exp 12/14

Safety: Harmful. Avoid all contact and inhalation.
Storage: -20°C upon arrival.