3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Ribonucleoside Vanadyl Complexes
200 mM

Catalog Number **R3380**
Storage Temperature –20 °C

Synonym: RVC

Product Description

Ribonucleoside vanadyl complexes (RVC) have been used as a ribonuclease inhibitor during cell lysis and cDNA production by reverse transcriptase. DNase I is not inhibited by a RVC concentration of 20 mM and consequently DNA can be degraded with DNase I, while using RVC to protect RNA from contaminating ribonucleases. RVC inhibit most nucleases with the exception of S1 nuclease, DNase I, and *Bacillus cereus* ribonuclease. RVC are not compatible with *in vitro* translation systems, but are tolerated when included with mRNA microinjected into frog oocytes.

Phenol extraction can be used to remove RVC from samples. If 8-hydroxyquinoline is included as an antioxidant with phenol, removal of RVC by successive phenol extraction is easily monitored. The orange colored phenol solution turns black as RVC are removed, but remains orange when all RVC have been extracted from the aqueous phase.

SDS and EDTA or other chelating agents may dissociate and inactivate ribonucleoside vanadyl complexes.

At a concentration of 20 mM, ribonucleoside vanadyl complexes will inhibit ~0.0002 Kunitz unit of RNase A per ml.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –20 °C is recommended.

References

1. Berger, S.L., and Birkenmeier, C.S., Biochemistry, **18**, 5143 (1979).
2. Puskas, R.S., *et al*., Biochemistry, **21**, 4602 (1982).

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