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

JB,LT,MAM 04/07-1