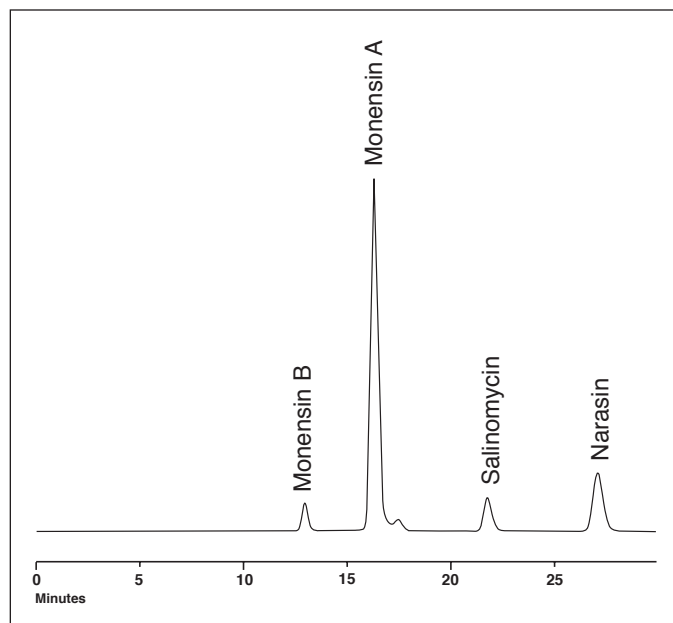




Polyether Antibiotics

Polyether antibiotics, such as Monensin, Narasin, and Salinomycin, in raw material, premix, liquid supplements, and final feeds, are best quantified using a high-performance liquid chromatograph equipped with a post-column reactor. The polyether antibiotics react, post-column, with Vanillin in the presence of Sulfuric acid, and the resulting products can be detected at 520 nm. However, this corrosive reagent can adversely degrade most instruments. Pickering's special PCX5200, comprised of mostly non-metallic parts and washing pump head, offers resistance to sulfuric acid. Special operating instructions will also be included with this instrument. Contact Pickering Laboratories for more information about the Inert PCX5200 Post-Column System for polyether antibiotics.



Monensin, Narasin, and Salinomycin

METHOD

Analytical Conditions

COLUMN: Polyether reversed-phase column, C₁₈, 4.6 x 250 mm, Catalog No. 2381750
TEMPERATURE: 40 °C
FLOW RATE: 0.7 mL/min
MOBILE PHASE: Methanol/5% acetic acid in water (90/10), Isocratic

Post-column Conditions

POST-COLUMN SYSTEM: PCX5200 (Non-metallic post-column derivatization system is required)
REAGENT 1: Concentrated Sulfuric acid/Methanol (4:96 v/v)
REACTOR 1: ambient, 0.1 mL
REAGENT 2: 60 g of Vanillin (or *p*-dimethylaminobenzaldehyde) in 950 mL of Methanol
REACTOR 2: 90 °C, 1.4 mL
FLOW RATE: 0.3 mL/min
DETECTION: UV-Vis detector:
Vanillin λ =520 nm, DMAB λ =450 nm

REFERENCES

- 1) M.R. LaPointe and H. Cohen, *J.A.O.A.C.*, **71** (1988) 480–484.
- 2) J.M. Rodewald, J.N. Moran, A.L. Donoho, and M.R. Coleman, *J.A.O.A.C.*, **75** (1992) 272–279.