

Datasheet for ABEE Labeling Kit

Catalog No. MGC-J710 | Package: 1 KIT (100 tests)

Contents:

- ABEE solution (methanol): 0.5 mL × 5
- Acetic acid: 0.3 mL × 5
- Reducing agent (pyridine borane complex): 0.25 mL × 5
- Reaction tubes: 100 tubes

Storage: Store at -20°C

Features:

This kit labels reducing ends of sugars derived from samples (plants, foods, proteins, etc.) with 4-aminobenzoic ethyl ester (ABEE) via reductive amination.

The labeled sugars can be sensitively analyzed using HPLC.

Other Required Reagents:

- Trifluoroacetic acid (TFA)
- 2-Propanol (Isopropanol)
- Chloroform
- HPLC-grade acetonitrile
- Standard sugars (e.g., J713, J714)
- HPLC column (Honenpak C18, Code J715)
- For borate-based analysis: methanol, pyridine, acetic anhydride, potassium borate buffer (e.g., Solvent Set Code J712)

Required Equipment:

- Small centrifuge
- Equipment to heat to 80°C and 100°C (e.g., block heater)
- Equipment for evaporation/drying (e.g., centrifugal concentrator)
- Full HPLC system (dual pumps, column oven, auto-sampler, fluorescence or UV detector)

Analysis Example:

- TFA-based analysis: Enables detection of amino sugars, avoids re-acetylation, short analysis time, and easy eluent preparation
- Borate-based analysis: Separates similar molecular weight monosaccharides (e.g., Gal, Glc, Man) well and avoids glucose contamination from reagents; also detects uronic acids

References:

1. Yasuno, S. et al., Biosci. Biotechnol. Biochem., 61, 1944 (1997)
2. Yasuno, S. et al., Biosci. Biotechnol. Biochem., 63, 1353 (1999)