



Purified FRUCTANASE Mixture for Fructan Determination (Lot 170301c)

E-FRMXLQ

10/19

This enzyme preparation is designed for use in the measurement of fructan (inulin) by the procedure of Orafti (AOAC Method 997.08). The procedure recommends the use of Fructozyme (Novo SP 230), which is a fermentation product containing highly active *exo*-inulinase and *endo*-inulinase. However, Fructozyme also contains other enzymes at activity levels which interfere with the specific measurement of fructan or, alternatively, result in depolymerisation, and thus underestimation, of other dietary fibre components. Furthermore, this preparation is no longer commercially available.

Fructanase Mixture (Purified) (10 mL) E-FRMXLQ

Components:

<i>exo</i> -Inulinase	2,000 U/mL (on kestose at 40°C)
<i>endo</i> -Inulinase	~ 100 U/mL (on fructan at 40°C)
α -Galactosidase	< 0.09 U/mL (on <i>p</i> -nitrophenyl α -galactoside at 40°C)
β -Glucanase	< 0.05 U/mL (on β -glucan at 40°C)
Pectinase	< 0.30 U/mL (on polygalacturonic acid at 40°C).

NOTE 1: This product has been purified to remove most of the α -galactosidase, β -glucanase and pectinase which interfere with the use of the preparation in the measurement of fructan, or in the solubilisation of “insoluble” fructan in the AOAC Total Dietary Fibre Methods.

NOTE 2: For assay, enzyme preparation is diluted in 100 mM of sodium acetate buffer (pH 4.5) containing BSA (1 mg/mL). If BSA is excluded from the buffer, lower activities are obtained.

Contamination of Fructanase Preparations by other Enzymes (Activity, % of *exo*-Inulinase)

Enzyme	Fructanase Mixture Purified	Fructozyme
<i>exo</i> -Inulinase	100	100
α -Galactosidase	0.004	15.2
β -Glucanase	0.002	0.3
Pectinase	0.03	2

This enzyme is supplied in a stabilised solution containing 50% glycerol and 0.02% sodium azide. It should be stored below -10°C between use.

For use in the AOAC/Orafti method, use the same volumes as recommended for Novo SP 230 (Fructozyme).