

FRUCTANASE MIXTURE (powder) (Lot 180402A)

Non-Recombinant

E-FRMXPD

05/22

EC: 3.2.1.7: *endo*-inulinase

Synonyms: 1- β -D-fructan fructanohydrolase

EC: 3.2.1.80: fructan β -fructosidase

Synonyms: fructan β -fructosidase

CAZy Family: GH32

PROPERTIES

This enzyme preparation is designed for use in the measurement of fructan (inulin) according to AOAC Method 997.08 and can also be used for methods AOAC 997.08, GB Standard 5009.255-2016 and AOAC 2016.06. This preparation can also be used to measure polydextrose in food following methods AOAC 2000.11 and the GB Standard 5009.245-2016. AOAC Method 997.08 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 fiber components. Furthermore, this preparation is no longer commercially available.

Fructanase Mixture (Purified)

Components:

<i>exo</i> -Inulinase	20,000 U (on kestose at 40°C)
<i>endo</i> -Inulinase	1,000 U (on fructan at 40°C)
α -Galactosidase	0.16 U (on <i>p</i> -nitrophenyl α -galactoside at 40°C)
β -Glucanase	1.4 U (on β -glucan at 40°C)
Pectinase	2.0 U (on polygalacturonic acid at 40°C).

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

Enzyme	Fructanase Mixture Purified	Fructozyme
<i>exo</i> -Inulinase	100	100
α -Galactosidase	0.008	15.2
β -Glucanase	0.007	0.3
Pectinase	0.009	2

STORAGE CONDITIONS:

This enzyme is supplied as a freeze-dried powder. It should be stored at -20°C. This enzyme preparation MUST be recovered from the bottle by dissolution in water (not buffer). Subsequent dilutions can then be performed in appropriate buffer.

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.

Once dissolved, store the enzyme in a polypropylene container below -10°C.