SUCRASE (MALTASE) From Yeast (Lot 80702)

E-SUCR **03/13**

EC 3.2.1.20 alpha-D-glucoside glucohydrolase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single major band on SDS-gel electrophoresis (62,000)
- Single major band on isoelectric focusing (pI = 5.7)

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES:

Substrate	Enzyme Measured	Specific Activity (U/mg protein)
Sucrose	α-Glucosidase	23.0
Maltose	α-Glucosidase	21.9
p-NP-α-Glucoside	α-Glucosidase	132.5
Kestose & Kestotetraose	α-Glucosidase	< 0.005
p-NP-β-Glucosidase	β-Glucosidase	< 0.001
p-NP-α-Galactoside	β-Galactosidase	< 0.001
p-NP-β-Galactoside	β-Galactosidase	< 0.001
Blocked *p*-NP-Maltoheptoaside	α-Amylase	< 0.001

This enzyme specifically hydrolyses sucrose in the presence of fructo-oligosaccharides. All activities were measured at pH 6.8 and 40°C. Action on sucrose was measured as glucose release, using glucose oxidase/peroxidase reagent. One Unit of enzyme activity is the amount of enzyme required to release one µmole of glucose/min from sucrose (10 mM) at pH 6.8 and 40°C. Other glycosidase activities were measured using the appropriate *p*-nitrophenyl glycoside (at 10 mM). One Unit of enzyme activity is the amount of enzyme required to release one micromole of *p*-nitrophenol/min from the appropriate substrate at pH 6.8 and 40°C.
α-Amylase was measured using the "CERALPHA" α-amylase assay method.

3. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	6.4-6.8
pH Stability:	5.6-7
Temperature Optima:	40°C
Temperature Stability:	< 40°C

4. STORAGE CONDITIONS:

The enzyme is supplied as a lyophilised powder and should be stored at -20°C.
On dissolution in buffer or water, the enzyme should be stored in the frozen state.
It is recommended that all buffers used for dilution contain BSA (1.0 mg/mL).