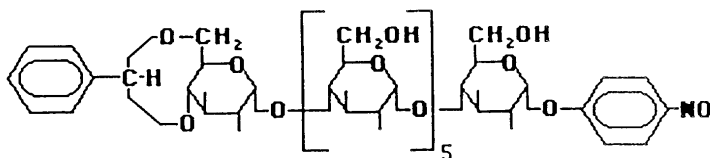




Blocked p-Nitrophenyl- α - D- Maltoheptaoside (BpNPG7)
(Catalogue no. BLNM-70-3685, 70-3685-01)

Benzylidene Substrate
Di-Blocked



Specifications:

Appearance:	White to yellow powder
Molecular Weight:	1362
Purity:	≥90% by Enzyme Digest Method
Water Content:	≤3% by Karl Fisher
Reaction rates (α -amylase) in PNU, ML	100 ± 5%
Reaction rates (α -amylase) in PPU, ML	100 ± 5%
Free PNP (4, Nitrophenol, free)	≤0.01%
PNPG7 (HPLC)	≤1.0% Area

Characteristics:

Storage:	Store desiccated at -20°C. Protect from prolonged exposure to light.
Stability:	18 months from date of analysis

Application:

For the determination of α -amylase:
 The addition of a blocking group to the non-reducing end of the pNP linked oligosaccharide prevents exoglucosidase from attacking the substrate molecule. Amylase can still cleave internally and release short pNP oligosaccharides. Once the blocking group is removed, the auxiliary enzymes are able to release the chromogen. The addition of glucoamylase speeds up this reaction by quickly attacking the longer chains which are then separated from the pNP by the maltase.

Recommended Formulation:

1.6mM (2.18mg/ml) BpNPG7
 12.5U/ml Maltase (MALT-70-1235)
 10U/ml Glucoamylase (GLUC-70-6881)
 50mM NaCl
 5mM CaCl₂
 in 50mM PIPES-HCl, pH 7.0

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