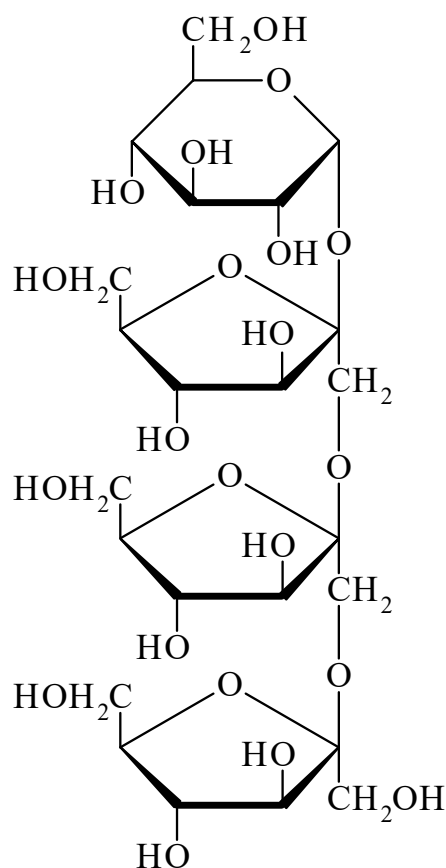




>>Entry Name: Nystose

ENTRY UNDER REVIEW

**Synonym(s):**  $\beta$ -D-Fructofuranosyl-(2 $\rightarrow$ 1)- $\beta$ -D-fructofuranosyl-(2 $\rightarrow$ 1)- $\beta$ -D-fructofuranosyl  $\alpha$ -D-glucopyranoside, 9Cl. Fungitetraose. 1,1-Kestotetraose



**CAS Registry Number:** 13133-07-8

**Molecular Formula:** C<sub>24</sub>H<sub>42</sub>O<sub>21</sub>

**Molecular Weight:** 666.583

**Accurate Mass:** 666.221865

**Percentage Composition:** C 43.25%; H 6.35%; O 50.40%

and roots of *Asparagus (Liliaceae)*

**Use/Importance:** Low-calorie sweetening agent for food and chewing gum. Constit. of neosugar which improves the intestinal flora in humans

**Physical Description:** Cryst. (MeOH/EtOH); cryst. + 1H<sub>2</sub>O; needles + 3MeOH (MeOH aq.)

**Melting Point:** Mp 134° (trihydrate). Mp 129-131° (monohydrate)

**Optical Rotation:**  $[\alpha]_D^{20} +10.3$  (c, 0.61 in H<sub>2</sub>O)

**Other Data:** Cmr data published prior to 1993 was incorrect

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Binkley, W.W. *et al.*, *Carbohydr. Res.*, 1971, **17**, 127; 1972, **23**, 301, (*ms, cmr*)  
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Shiomi, N. *et al.*, *Agric. Biol. Chem.*, 1979, **43**, 2233, (*enzymic synth*)  
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