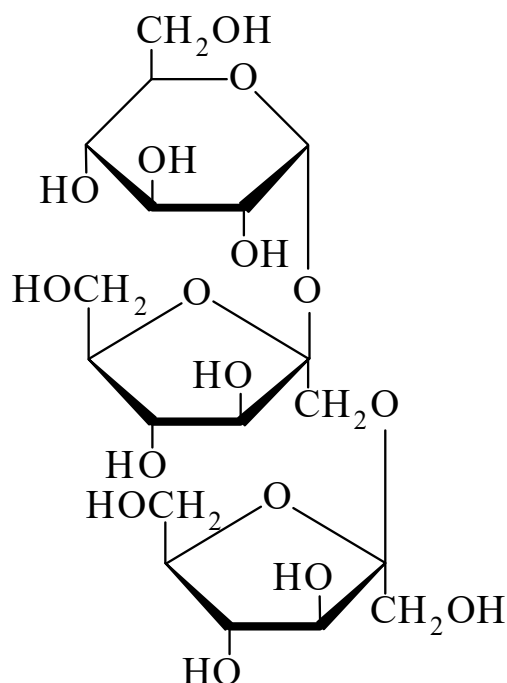




>>Entry Name: 1-Kestose

Synonym(s): *O*-β-D-Fructofuranosyl-(2→1)-β-D-fructofuranosyl α-D-glucopyranoside, 9Cl, 8Cl. *O*-α-D-Glucopyranosyl-(1→2)-*O*-β-D-fructofuranosyl-(1→2)-β-D-fructofuranoside. Isokestose. 1-Fructosylsucrose. Inulobiosylsucrose. 1-Kestotriose



CAS Registry Number: 470-69-9

Molecular Formula: C₁₈H₃₂O₁₆

Molecular Weight: 504.441

Accurate Mass: 504.16904

Percentage Composition: C 42.86%; H 6.39%; O 50.75%

Biological Source: Formed by the action of various enzymes on sucrose. Also isol. from some monocotyledons and from moulds, eg. *Aspergillus*

Use/Importance: Appears to play an essential role in the metabolism of D-fructose polymers in the tubers of the Jerusalem artichoke

Melting Point: Mp 82-88°. Mp 200-201° (double Mp)

Optical Rotation: [α]_D²⁰+28.5 (c, 1.8 in H₂O)

>>Derivative: Undeca-Ac

Molecular Formula: C₄₀H₅₄O₂₇

Molecular Weight: 966.85

Accurate Mass: 966.285255

Percentage Composition: C 49.69%; H 5.63%; O 44.68%

Physical Description: Syrup

Optical Rotation: [α]_D²⁰+31.8 (c, 3.7 in CHCl₃)

>>Derivative: Undeca-Me

Molecular Formula: C₂₉H₅₄O₁₆

Molecular Weight: 658.736

Accurate Mass: 658.34119

Percentage Composition: C 52.88%; H 8.26%; O 38.86%

Optical Rotation: [α]_D²⁰+27.9 (c, 2.5 in H₂O)

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