

Trehalose 6-phosphate (potassium salt hydrate)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Trehalose is a natural non-reducing disaccharide found in plants, invertebrates, fungi, and bacteria. ^{1,2} In addition to roles as an energy source and stress protectant, trehalose can function as a signaling molecule. ^{3,4} Trehalose 6-phosphate is an intermediate in the biosynthesis of trehalose. It is generated from UDP-glucose and glucose 6-phosphate by trehalose 6-phosphate synthase (TPS or otsA). ⁵ In plants, changes in trehalose 6-phosphate levels positively correlate with diurnal changes in sucrose and may regulate diverse processes, including starch degradation and flowering. ^{3,6}
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Solubility Information

Solubility	H2O: 50 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

Walmagh, M., Zhao, R., and Desmet, T. Trehalose analogues: Latest insights in properties and biocatalytic production. *International Journal of Molecular Sciences* 16(6)13729-13745(2015)

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481