

# **Screening Libraries**

**Proteins** 

## **Product** Data Sheet

# treS Protein, Thermus thermophilus

Cat. No.: HY-P702099

Synonyms: treS; Trehalose synthase; Maltose alpha-D-glucosyltransferase

Species: E. coli Source:

Accession: O06458 (M1-A963)

Gene ID:

Molecular Weight:

	$\mathbf{a}$	пг		TE C
1217	4 8 1	PF	КΙ	TES
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Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### **DESCRIPTION**

#### Background

The treS protein is an enzyme that plays a crucial role in carbohydrate metabolism by catalyzing the reversible interconversion of maltose and alpha, alpha-trehalose through transglucosylation. This enzymatic activity is involved in the biosynthesis and breakdown of trehalose, a disaccharide composed of two glucose molecules linked by an alpha-1,1glycosidic bond. Trehalose serves as a versatile and protective sugar in various organisms, playing roles in stress response, energy storage, and cellular protection. The reversible action of treS facilitates the dynamic regulation of trehalose levels based on cellular requirements. Understanding the functions of treS provides insights into the intricate network of carbohydrate metabolism and the versatile roles of trehalose in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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