
Product Data Sheet

Product Name: TPK1 Human
 Cat. No.: GP22643
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Thiamin pyrophosphokinase 1; hTPK1; Placental protein 20; PP20; Thiamine pyrophosphokinase 1; TPK1; THMD5.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMEHAFT PLEPLLSTGN LKYCLVILNQ PLDNYFRHLW NKALLRACAD GGANRLYDIT EGERESFLPE FINGDFDSIR PEVREYYATK GCELISTPDQ DHTDFTKCLK MLQKKIEEKD LKVDVIVTLG GLAGRFDQIM ASVNTLFQAT HITPFPIIIIIQEESELIYLLQ PGKHRLHVDT GMEGDWCGLI PVGQPCMQVT TTGLKWNLTN DVLAFTGLVS TSNTYDGSGV VTVETDHPLL WTMAIKS.		
Formulation	TPK1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 20% glycerol and 1mM DTT.		

Introduction

Thiamin pyrophosphokinase 1 (TPK1) is a homodimer which catalyzes the phosphorylation of thiamine to thiamine pyrophosphate. TPK1 is found in the heart, kidney, testis, small intestine and peripheral blood leukocytes, and at very low levels in a variety of tissues. TPK1 gene defects cause the thiamine metabolism dysfunction syndrome type 5, episodic encephalopathy type (THMD5), which is an autosomal recessive metabolic disorder due to an inborn error of thiamine metabolism.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

TPK1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide

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

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chain containing 267 amino acids (1-243 a.a.) and having a molecular mass of 29.8kDa. TPK1 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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