
Product Data Sheet

Product Name: TPM3 Human
 Cat. No.: GP24866
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Tropomyosin alpha-3 chain; Gamma-tropomyosin; Tropomyosin-3; Tropomyosin-5; hTM5; TPM3; TM3; TM5; TRK; CFTD; NEM1; TM-5; TM30; TM30nm; TPMsk3; hscp30; OK/SW-cl.5.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSHMAGITT IEAVKRRIQV LQQQADDAEE RAERLQREVE GERRAREQAE AEVASLNRRRI QLVVEELDRA QERLATALQK LEEAEKAADE SERGMKVIEN RALKDEEKME LQEIQLKEAK HIAEEADRKY EEVARKLVII EGDLERTEER AELAESRCRE MDEQIRLMDQ NLKCLSAEE KYSQKEDKYE EEIKILTDKL KEAETRAEFA ERSVAKLEKT IDDLKDKLKC TKEEHLCTQR MLDQTLDDLN EM.		
Formulation	TPM3 protein solution (0.5mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 10% glycerol, 0.1M NaCl.		

Introduction

Tropomyosin alpha-3 chain (TPM3) belongs to the tropomyosin family of actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosins are dimers of coiled-coil proteins which polymerize end-to-end along the major groove in most actin filaments. Tropomyosins give stability to the filaments and regulate access of other actin-binding proteins. In muscle cells, tropomyosins regulate muscle contraction by controlling the binding of myosin heads to the actin filament. Mutations in the TPM3 gene cause autosomal dominant nemaline myopathy, and oncogenes formed by chromosomal translocations involving this locus are linked with cancer.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

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

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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

TPM3 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 272 amino acids (1-248 a.a.) and having a molecular mass of 31.6kDa. TPM3 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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