

## TPM3 Human

**Description:** 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.

**Catalog #:** PRPS-1027

For research use only.

**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.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered clear solution.

**Amino Acid Sequence:** MGSSHHHHHH SSGLVPRGSH MGSHMAGITT IEAVKRKIQV  
LQQQADDAEE RAERLQREVE GERRAREQAE AEVASLNRRI QLVEEELDRA QERLATALQK  
LEEAEEKADE SERGMKVIEN RALKDEEKME LQEIQLKEAK HIAEEADRY EEVARKLVII  
EGDLERTEER AELAESRCRE MDEQIRLMDQ NLKCLSAAEE KYSQKEDKYE EEIKILTDKL  
KEAETRAEFA E

**Purity:** Greater than 90% as determined by SDS-PAGE.

**Formulation:**

TPM3 protein solution (0.5mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 10% glycerol, 0.1M NaCl.

**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.

**Usage:**

NeoBiolabs products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**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.

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