Tropomyosin (F-6): sc-74480

**BACKGROUND**

Tropomyosins are a group of structural proteins. Tropomyosin is present in virtually all eukaryotic cells, both muscle and non-muscle, where they bind Actin filaments and function to modulate Actin-Mysin interaction and stabilize Actin filament structure. Tropomyosin α is encoded by the TPM1 gene, which maps to human chromosome 15q22.2 and undergoes alternative splicing to generate at least four isoforms, including skeletal muscle (isoform 1), smooth muscle (isoform 2), fibroblast/TM3 (isoform 3) and isoform 4. Tropomyosin β is encoded by the TPM2 gene, which maps to human chromosome 9p13.3 and undergoes alternative splicing to generate three isoforms, including skeletal muscle (isoform 1), non-muscle/fibroblast TM3/epithelial TMe1 (isoform 2) and non-muscle (isoform 3). Tropomyosin α and Tropomyosin β are encoded by the TPM3 gene, which maps to human chromosome 4B1.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TPM1 (human) mapping to 15q22.2, TPM2 (human) mapping to 9p13.3, Tpm1 (mouse) mapping to 9 C, Tpm2 (mouse) mapping to 4 B1.

**SOURCE**

Tropomyosin (F-6) is a mouse monoclonal antibody raised against amino acids 1-284 representing full length Tropomyosin α1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tropomyosin (F-6) is available conjugated to agarose (sc-74480 AC), 500 µg/0.25 ml agarose in 1 ml, for IF; to HRP (sc-74480 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycoerythrin (sc-74480 PE), fluorescein (sc-74480 FITC), Alexa Fluor® 488 (sc-74480 AF488), Alexa Fluor® 546 (sc-74480 AF546), Alexa Fluor® 594 (sc-74480 AF594) or Alexa Fluor® 647 (sc-74480 AF647), 200 µg/ml, for WB (RGB), IF, IHC and FCM; and to either Alexa Fluor® 680 (sc-74480 AF680) or Alexa Fluor® 790 (sc-74480 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Tropomyosin (F-6) is recommended for detection of Tropomyosin α-1, 2, 3 and β-1, 3 isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.