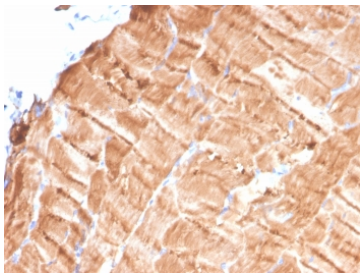
Alpha Tropomyosin Antibody / Tropomyosin-1 / TPM1 [clone TPM1/4510] (V4387)

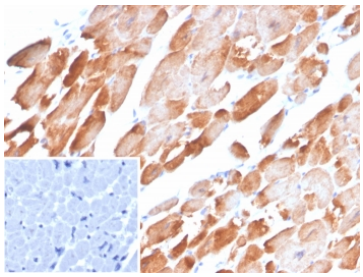
Catalog No.	Formulation	Size
V4387-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4387-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4387SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

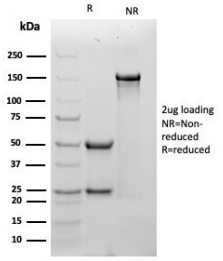
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	TPM1/4510
Purity	Protein A/G affinity
UniProt	P04268
Localization	Cytoplasm, Cytoskeleton
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Alpha Tropomyosin antibody is available for research use only.



IHC staining of FFPE human skeletal muscle tissue with Tropomyosin antibody (clone TPM1/4510). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human heart tissue with Tropomyosin antibody (clone TPM1/4510). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Tropomyosin antibody (clone TPM1/4510) as confirmation of integrity and purity.

Description

Tropomyosins are a group of structural proteins. Tropomyosins are present in virtually all eukaryotic cells, both muscle and non-muscle, where they bind actin filaments and function to modulate Actin-myosin interaction and stabilize actin filament structure. Tropomyosin Alpha 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 b 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 TM36/epithelial TMe1 (isoform 2) and non-muscle (isoform 3). Troponin I binds Tropomyosin at a specific region and the association of Tropomyosin-Troponin with actin filaments may increase the rigidity of actin filaments. Tropomyosin also interacts with caldesmon to regulate smooth muscle contraction.

Application Notes

Optimal dilution of the Alpha Tropomyosin antibody should be determined by the researcher.

Immunogen

Recombinant full-length protein was used as the immunogen for the Alpha Tropomyosin antibody.

Storage

Aliquot the Alpha Tropomyosin antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.