**Titin (E-2): sc-271946**

**BACKGROUND**

Titin, also known as connectin, is a large protein involved in the temporal and spatial control of the assembly of the highly ordered sarcomeres (contractile units) of striated muscle. In addition to sarcomere assembly, Titin also functions to maintain the structural integrity of the contracting myofibrils within the muscle and to organize the machinery for condensation of chromosomes in dividing cells. Titin is a giant protein composed of 27,000 amino acids and contains an autoregulated serine kinase catalytic domain as well as a calcium/calmodulin binding region that are involved in its activation. Activated Titin phosphorylates the muscle protein telethonin, a sarcomeric protein abundant in heart and skeletal muscle, implicating Titin activity in the reorganization of the cytoskeleton during myofibrillogenesis.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TTN (human) mapping to 2q31.2; Ttn (mouse) mapping to 2 C3.

**SOURCE**

Titin (E-2) is a mouse monoclonal antibody raised against amino acids 33124-33423 mapping at the C-terminus of Titin of human origin.

**APPLICATIONS**

Titin (E-2) is recommended for detection of Titin of mouse, rat and human origin by 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of Titin: 3000 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml) 2) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE:sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium:sc-24941 or UltraCruz® Hard-set Mounting Medium:sc-359850.

**DATA**

- Dot blot analysis of Titin expression in A-10 (A), SJRH30 (B) and Sol8 (C) whole cell lysates immunoprecipitated with Titin (N-20): sc-8723 and detected with Titin (E-2): sc-271946.

**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.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.