

THAP5 (T-14): sc-138685

BACKGROUND

THAP5 (THAP domain containing 5) is a 395 amino acid protein that is expressed predominantly in heart with very low expression in brain and muscle. Existing as two isoforms produced by alternative splicing events, THAP5 contains one THAP-type zinc finger, a conserved DNA-binding domain. THAP5 is a specific interactor and substrate of HtrA2 in cells undergoing apoptosis. Considered a cardiac-specific nuclear protein, THAP5 is downregulated in the myocardial infarction area in patients with coronary artery disease, suggesting a role in heart disease. THAP5 exists as two isoforms that are produced by alternative splicing events. The gene encoding THAP5 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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7. Balakrishnan, M.P., et al. 2009. THAP5 is a human cardiac-specific inhibitor of cell cycle that is cleaved by the proapoptotic Omi/HtrA2 protease during cell death. *Am. J. Physiol. Heart Circ. Physiol.* 297: H643-H653.

CHROMOSOMAL LOCATION

Genetic locus: THAP5 (human) mapping to 7q31.1.

SOURCE

THAP5 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of THAP5 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138685 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

THAP5 (T-14) is recommended for detection of THAP5 of human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other THAP family members.

Suitable for use as control antibody for THAP5 siRNA (h): sc-89646, THAP5 shRNA Plasmid (h): sc-89646-SH and THAP5 shRNA (h) Lentiviral Particles: sc-89646-V.

Molecular Weight of THAP5: 50 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.