SANTA CRUZ BIOTECHNOLOGY, INC.

TDRD3 (G-20): sc-84627

BACKGROUND

TDRD3 (tudor domain containing 3) is a 651 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one UBA domain and one tudor domain. Expressed in lung, brain, heart, liver, placenta, kidney, pancreas and skeletal muscle, TDRD3 exists as a component of mRNA stress granules and is thought to play a role in the translation of target mRNAs, as well as in the assembly and disassembly of stress granules. Multiple isoforms of TDRD3 exist due to alternative splicing events. The gene encoding TDRD3 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

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4. Bugge, M., et al. 2007. Non-disjunction of chromosome 13. Hum. Mol. Genet. 16: 2004-2010.
5. Hall, H.E., et al. 2007. The origin of trisomy 13. Am. J. Med. Genet. A 143: 2242-2248.
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CHROMOSOMAL LOCATION

Genetic locus: TDRD3 (human) mapping to 13q21.2; Tdrd3 (mouse) mapping to 14 E1.

SOURCE

TDRD3 (G-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TDRD3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84627 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TDRD3 (G-20) is recommended for detection of TDRD3 of mouse, rat and 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).

Suitable for use as control antibody for TDRD3 siRNA (h): sc-76639, TDRD3 siRNA (m): sc-154165, TDRD3 shRNA Plasmid (h): sc-76639-SH, TDRD3 shRNA Plasmid (m): sc-154165-SH, TDRD3 shRNA (h) Lentiviral Particles: sc-76639-V and TDRD3 shRNA (m) Lentiviral Particles: sc-154165-V.

Molecular Weight of TDRD3: 73 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HT-1080 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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