SANTA CRUZ BIOTECHNOLOGY, INC.

TSPYL4 (I-12): sc-244516

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TSPYL4 (testis-specific Y-encoded-like protein 4) is a 414 amino acid protein that belongs to the nucleosome assembly protein (NAP) family. The gene encoding TSPYL4 maps to human chromosome 6, which contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatiblity complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6.

REFERENCES

1. Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. Hum. Mol. Genet. 3: 1561-1564.
2. Kószó, F. and Simon, M. 2000. Pathogenesis of porphyria cutanea tarda. Orv. Hetil. 141: 709-713.
3. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. Proc. Natl. Acad. Sci. USA 100: 5956-5961.
4. Harel, T., et al. 2005. COL11A2 mutation associated with autosomal recessive Weissenbacher-Zweymuller syndrome: molecular and clinical overlap with otospondylomegaepiphyseal dysplasia (OSMED). Am. J. Med. Genet. A 132A: 33-35.
5. Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. Genes Chromosomes Cancer 47: 159-164.
6. Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B: 29-37.

CHROMOSOMAL LOCATION

Genetic locus: TSPYL4 (human) mapping to 6q22.1; Tspyl4 (mouse) mapping to 10 B1.

SOURCE

TSPYL4 (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TSPYL4 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-244516 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TSPYL4 (I-12) is recommended for detection of TSPYL4 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); non cross-reactive with other TSPYL family members.

TSPYL4 (I-12) is also recommended for detection of TSPYL4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TSPYL4 siRNA (h): sc-95085, TSPYL4 siRNA (m): sc-154734, TSPYL4 shRNA Plasmid (h): sc-95085-SH, TSPYL4 shRNA Plasmid (m): sc-154734-SH, TSPYL4 shRNA (h) Lentiviral Particles: sc-95085-V and TSPYL4 shRNA (m) Lentiviral Particles: sc-154734-V.

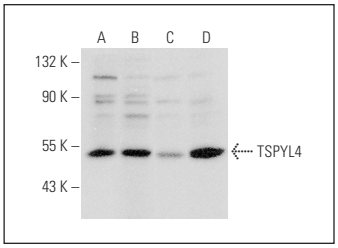
Molecular Weight of TSPYL4: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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.

DATA



TSPYL4 (I-12): sc-244516. Western blot analysis of TSPYL4 expression in HeLa (**A**), Jurkat (**B**), Hep G2 (**C**) and K-562 (**D**) whole cell lysates.

RESEARCH USE

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