

TWISTNB (T-12): sc-165845

BACKGROUND

TWISTNB (twist neighbor protein), also known as DNA-directed RNA polymerase I subunit RPA43, is a 338 amino acid protein belonging to the eukaryotic RPA43 RNA polymerase subunit family. Localized to the nucleus, TWISTNB is a component of the RNA polymerase I (Pol I) complex that interacts directly with Rrn3. TWISTNB is thought to be involved in the recruitment of Pol I to rDNA promoters. The gene that encodes TWISTNB maps to human chromosome 7, which encodes over 1,000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
3. Kosan, C., et al. 2002. Identification and characterisation of the gene TWIST NEIGHBOR (TWISTNB) located in the microdeletion syndrome 7p21 region. *Cytogenet. Genome Res.* 97: 167-170.
4. Yuan, X., et al. 2002. Multiple interactions between RNA polymerase I, TIF-IA and TAF(I) subunits regulate preinitiation complex assembly at the ribosomal gene promoter. *EMBO Rep.* 3: 1082-1087.
5. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.

CHROMOSOMAL LOCATION

Genetic locus: TWISTNB (human) mapping to 7p21.1; Twistnb (mouse) mapping to 12 A3.

SOURCE

TWISTNB (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TWISTNB of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-165845 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TWISTNB (T-12) is recommended for detection of TWISTNB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TWISTNB (T-12) is also recommended for detection of TWISTNB in additional species, including bovine and avian.

Suitable for use as control antibody for TWISTNB siRNA (h): sc-89350, TWISTNB siRNA (m): sc-154815, TWISTNB shRNA Plasmid (h): sc-89350-SH, TWISTNB shRNA Plasmid (m): sc-154815-SH, TWISTNB shRNA (h) Lentiviral Particles: sc-89350-V and TWISTNB shRNA (m) Lentiviral Particles: sc-154815-V.

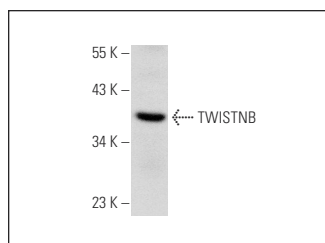
Molecular Weight of TWISTNB: 37 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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



TWISTNB (T-12): sc-165845. Western blot analysis of TWISTNB expression in HeLa whole cell lysate.

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.