

N-twist (K-12): sc-132748

BACKGROUND

N-twist (neuronal twist), also known as Fer3-like protein or nephew of atonal 3, is a 166 amino acid member of the basic helix-loop-helix (bHLH) transcription factor family. N-twist functions as an inhibitor of transcription by binding DNA at the E box, a consensus bHLH-binding site. Primarily expressed in the developing central nervous system, N-twist interacts with the bHLH domain of E12 to form a heterodimer. By sequestering E proteins in a dominant-negative fashion, N-twist inhibits ASH1L-dependent transcriptional activation, which suggests the role N-twist may play in the negative regulation of neurogenesis. Methylation of the gene encoding N-twist has shown to be associated with a poor prognosis in CpG island (CGI) methylator phenotype (CIMP) positive neuroblastomas.

REFERENCES

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2. Spicer, D.B., Rhee, J., Cheung, W.L. and Lassar, A.B. 1996. Inhibition of myogenic bHLH and MEF2 transcription factors by the bHLH protein twist. *Science* 272: 1476-1480.
3. Hamamori, Y., Wu, H.Y., Sartorelli, V. and Kedes, L. 1997. The basic domain of myogenic basic helix-loop-helix (bHLH) proteins is the novel target for direct inhibition by another bHLH protein, twist. *Mol. Cell. Biol.* 17: 6563-6573.
4. Lee, M.S., Lowe, G.N., Strong, D.D., Wergedal, J.E. and Glackin, C.A. 1999. Twist, a basic helix-loop-helix transcription factor, can regulate the human osteogenic lineage. *J. Cell. Biochem.* 75: 566-577.
5. Segev, E., Halachmi, N., Salzberg, A. and Ben-Arie, N. 2001. Noto3 is an evolutionarily conserved bHLH transcription factor expressed in the CNS of *Drosophila* and mouse. *Mech. Dev.* 106: 197-202.

CHROMOSOMAL LOCATION

Genetic locus: FERD3L (human) mapping to 7p21.1; Ferd3l (mouse) mapping to 12 A3.

SOURCE

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

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-132748 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-132748 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

N-twist (K-12) is recommended for detection of N-twist of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

N-twist (K-12) is also recommended for detection of N-twist in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for N-twist siRNA (h): sc-89469, N-twist siRNA (m): sc-149775, N-twist shRNA Plasmid (h): sc-89469-SH, N-twist shRNA Plasmid (m): sc-149775-SH, N-twist shRNA (h) Lentiviral Particles: sc-89469-V and N-twist shRNA (m) Lentiviral Particles: sc-149775-V.

N-twist (K-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of N-twist: 26 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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) 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.

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.