

twist (L-21): sc-134136

BACKGROUND

Members of the myogenic determination family are basic helix-loop-helix (bHLH) proteins that can be separated into two classes. Class A proteins include the ubiquitously expressed E-box binding factors E12/E47, ITF2 and HEB (BETA1 or HTF4). Class B proteins such as MyoD, myogenin and Neuro D (BETA2) are transiently expressed and exhibit a much more limited tissue distribution. Class A proteins heterodimerize with class B proteins to activate DNA transcription. Working in opposition to these positively acting factors are a specialized group of proteins that function as dominant negative regulators. Muscle tissue is derived from a subset of cells originating from the embryonic mesoderm. The novel basic helix-loop-helix (bHLH) transcription factor twist is a putative regulator of mesodermal differentiation and myogenesis. Twist is expressed throughout the epithelial somite but not in the myotome. Twist requires dimerization with the E proteins and inhibits myogenic regulatory factors. It has been implicated as regulator of the temporal and spatial formation of myotomes.

REFERENCES

1. Lee, J.E., et al. 1995. Conversion of *Xenopus* ectoderm into neurons by Neuro D, a basic helix-loop-helix protein. *Science* 268: 836-844.
2. Naya, F.J., et al. 1995. Tissue-specific regulation of the Insulin gene by a novel basic helix-loop-helix transcription factor. *Genes Dev.* 9: 1009-1019.
3. Vitola, S.J., et al. 1996. Substitution of basic amino acids in the basic region stabilizes DNA binding by E12 homodimers. *Nucleic Acids Res.* 24: 1921-1927.
4. Goldfarb, A.N., et al. 1996. Determinants of helix-loop-helix dimerization affinity. *J. Biol. Chem.* 271: 2683-2688.
5. Ishiguro, A., et al. 1996. Id2 expression increases with differentiation of human myeloid cells. *Blood* 87: 5225-5231.

CHROMOSOMAL LOCATION

Genetic locus: TWIST1 (human) mapping to 7p21.1; Twist1 (mouse) mapping to 12 A3.

SOURCE

twist (L-21) is a Protein A purified rabbit polyclonal antibody raised against synthetic twist peptide of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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.

APPLICATIONS

twist (L-21) is recommended for detection of twist of mouse, rat, human and zebrafish 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

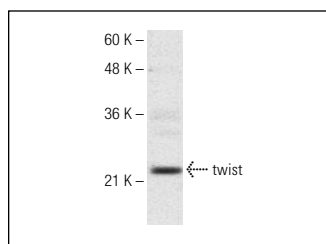
twist (L-21) is also recommended for detection of twist in additional species, including equine, bovine and canine.

Suitable for use as control antibody for twist siRNA (h): sc-38604, twist siRNA (m): sc-38605, twist shRNA Plasmid (h): sc-38604-SH, twist shRNA Plasmid (m): sc-38605-SH, twist shRNA (h) Lentiviral Particles: sc-38604-V and twist shRNA (m) Lentiviral Particles: sc-38605-V.

Molecular Weight of twist: 28 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 whole cell lysate: sc-2210 or Jurkat whole cell lysate: sc-2204.

DATA



twist (L-21): sc-134136. Western blot analysis of twist expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Liu, Y., et al. 2012. Snail1 is involved in *de novo* cardiac fibrosis after myocardial infarction in mice. *Acta Biochim. Biophys. Sin.* 44: 902-910.

PROTOCOLS

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



Try **twist (Twist2C1a): sc-81417**, our highly recommended monoclonal alternative to twist (L-21).