

twist (H-81): sc-15393

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 NeuroD (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.

CHROMOSOMAL LOCATION

Genetic locus: TWIST1 (human) mapping to 7p21.2, TWIST2 (human) mapping to 2q37.3; Twist1 (mouse) mapping to 12 A3, Twist2 (mouse) mapping to 1 D.

SOURCE

twist (H-81) is a rabbit polyclonal antibody raised against amino acids 121-202 of 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-15393 X, 200 µg/0.1 ml.

APPLICATIONS

twist (H-81) is recommended for detection of twist and twist2 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).

twist (H-81) is also recommended for detection of twist and twist2 in additional species, including equine, canine, bovine, porcine and avian.

twist (H-81) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of twist: 28 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, JAR cell lysate: sc-2276 or MES-SA/Dx5 cell lysate: sc-2284.

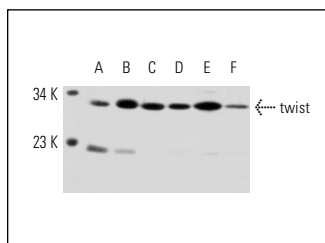
STORAGE

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.

DATA



twist (H-81): sc-15393. Western blot analysis of twist expression in HeLa nuclear extract (A) and WI 38 (B), AtT-20/D16vF2 (C), JAR (D), MES-SA/Dx5 (E) and JEG-3 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

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4. Loayza-Puch, F., et al. 2010. Hypoxia and RAS-signaling pathways converge on, and cooperatively downregulate, the RECK tumor-suppressor protein through microRNAs. *Oncogene* 29: 2638-2648.
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6. Wiklund, E.D., et al. 2011. Coordinated epigenetic repression of the miR-200 family and miR-205 in invasive bladder cancer. *Int. J. Cancer* 128: 1327-1334.
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9. Gu, T.T., et al. 2012. Cytoplasmic NANOG-positive stromal cells promote human cervical cancer progression. *Am. J. Pathol.* 181: 652-661.
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Try **twist (Twist2C1a): sc-81417**, our highly recommended monoclonal alternative to twist (H-81).