abcam

Product datasheet

Anti-Twist antibody [Twist2C1a] ab50887

26 Abreviews 220 References 7 Images

Overview

Product name	Anti-Twist antibody [Twist2C1a]
Description	Mouse monoclonal [Twist2C1a] to Twist
Host species	Mouse
Specificity	Good controls are NIH3T3 and A2058 cell lysates. Given that the immunogen shares 92% homology with Twist2, it is possible that it may cross-react. Although some customers have obtained good results in IHC, we do not recommend this antibody for use in IHC.
Tested applications	**Suitable for:** WB, ICC
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment corresponding to Human Twist (C terminal).
Positive control	WB: Recombinant Human Twist protein (**ab132349**) can be used as a positive control. A2058, NIH/3T3 and F2408 whole cell lysate. ICC: HeLa cells.
General notes	This product was changed from ascites to tissue culture supernatant on 9th August 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.05% Sodium azide Constituents: 1% BSA, PBS
Purity	Protein G purified

Purification notes	Purified from TCS
Clonality	Monoclonal
Clone number	Twist2C1a
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab50887 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (9)	Use a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 21 kDa. Abcam recommends using BSA blocking.
ICC	★★★★★ (1)	Use a concentration of 2 - 100 µg/ml.

Target

Function Acts as a transcriptional regulator. Inhibits myogenesis by sequestrating E proteins, inhibiting trans-activation by MEF2, and inhibiting DNA-binding by MYOD1 through physical interaction. This interaction probably involves the basic domains of both proteins. Also represses expression of proinflammatory cytokines such as TNFA and IL1B. Regulates cranial suture patterning and fusion. Activates transcription as a heterodimer with E proteins. Regulates gene expression differentially, depending on dimer composition. Homodimers induce expression of FGFR2 and POSTN while heterodimers repress FGFR2 and POSTN expression and induce THBS1 expression. Heterodimerization is also required for osteoblast differentiation.

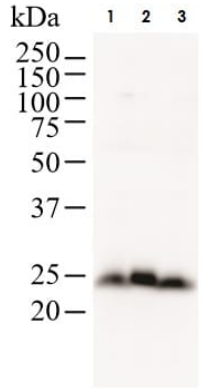
Tissue specificity Subset of mesodermal cells.

Involvement in disease Defects in TWIST1 are a cause of Saethre-Chotzen syndrome (SCS) [MIM:101400]; also known as acrocephalosyndactyly type 3 (ACS3). SCS is a craniosynostosis syndrome characterized by coronal synostosis, brachycephaly, low frontal hairline, facial asymmetry, hypertelorism, broad halluces, and clinodactyly.
Defects in TWIST1 are the cause of Robinow-Sorauf syndrome (RSS) [MIM:180750]; also known as craniosynostosis-bifid hallux syndrome. RSS is an autosomal dominant defect characterized by minor skull and limb anomalies which is very similar to Saethre-Chotzen syndrome.
Defects in TWIST1 are the cause of craniosynostosis type 1 (CRS1) [MIM:123100]. Craniosynostosis consists of premature fusion of one or more cranial sutures, resulting in an abnormal head shape.

Sequence similarities Contains 1 basic helix-loop-helix (bHLH) domain.

Cellular localization Nucleus.

Images



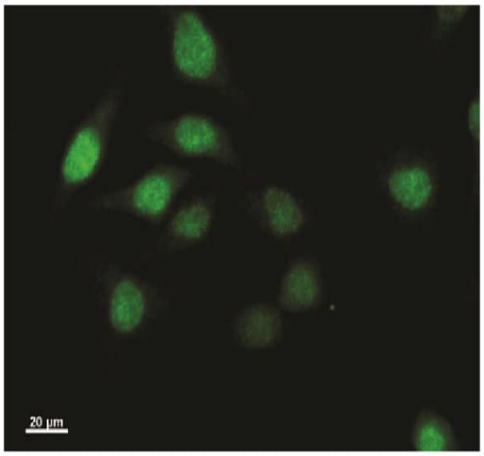
Western blot - Anti-Twist antibody [Twist2C1a] (ab50887)

All lanes : Anti-Twist antibody [Twist2C1a] (ab50887) at 2 µg/ml

Lane 1 : A2058 (Human melanoma cell line) whole cell lysate
Lane 2 : NIH/3T3 (Mouse embryo fibroblast cell line) whole cell lysate
Lane 3 : F2408 (Rat normal fibroblast cell line) whole cell lysate

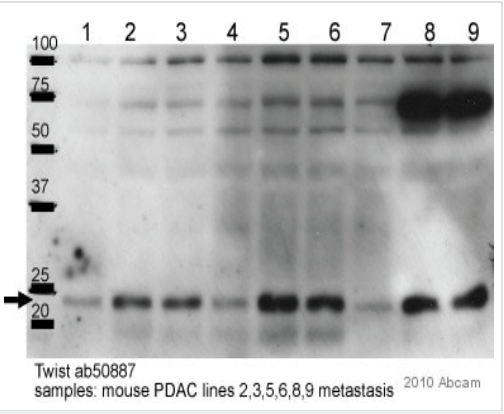
Lysates/proteins at 25 µg per lane.

Predicted band size: 21 kDa



Immunocytochemistry - Anti-Twist antibody [Twist2C1a] (ab50887)

4% paraformaldehyde-fixed, 0.1% Triton-permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells stained for Twist using ab50887 at 100 µg/ml in immunocytochemistry.



Western blot - Anti-Twist antibody [Twist2C1a] - ChIP Grade (ab50887)

This image is courtesy of an Abreview submitted by Pawel Mazur

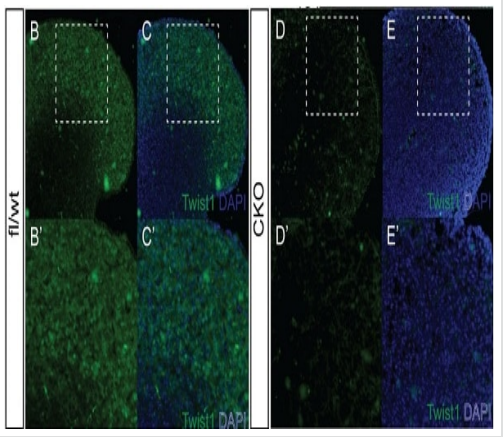
All lanes: Twist antibody [Twist2C1a] - ChIP Grade (ab50887) at 1/250 dilution in PBST for 8 hours at 4°C

Lanes 2, 3, 5, 6, 8 & 9: Whole cell lysate of mouse pancreatic tumor
Lanes 1, 4 & 7: Whole cell lysate of Mouse metastatic pancreatic carcinoma

Lysates at 50 µg per lane

Secondary Antibody: An HRP-conjugated sheep anti-mouse IgG polyclonal (1/2000) developed using the ECL technique

Blocking Step: 10% Milk for 1 hour at room temperature



Immunocytochemistry - Anti-Twist antibody [Twist2C1a] - ChIP Grade (ab50887)

Loebel DA et al., PLoS One, 9, e98945, 2014
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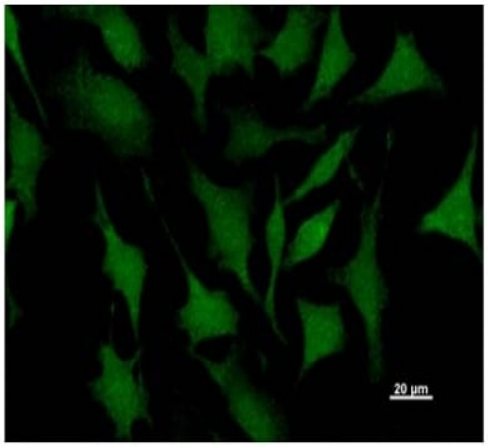
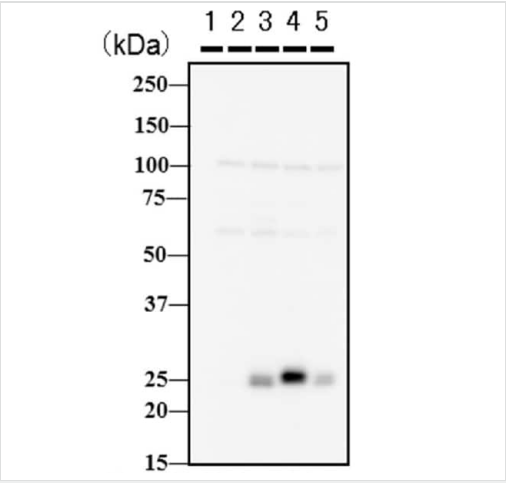
Immunostaining with anti-Twist1 monoclonal antibody ab50887 (green, 1/50 dilution) of cryosectioned wild type (fl/wt) (B, C, B′, C′) and conditional knockout (CKO) (D, E, D′, E′) mouse embyonic day 11.5 forelimb buds of embryos harvested from mothers injected with tamoxifen at embryonic day 10.5. (C, C′, E, E′) Merged images showing counterstaining with DAPI (blue). (B′–E′) Higher magnification images of the boxed regions in B–E. An AlexaFlour 488 conjugated donkey anti-mouse was used as the secondary antibody



Immunocytochemistry - Anti-Twist antibody [Twist2C1a] - ChIP Grade (ab50887)

ab50887 at 1/1 dilution staining HeLa cells; visualised with AlexaFluor®488 Goat anti-mouse IgG at 1/200 dilution.



Western blot - Anti-Twist antibody [Twist2C1a] - ChIP Grade (ab50887)

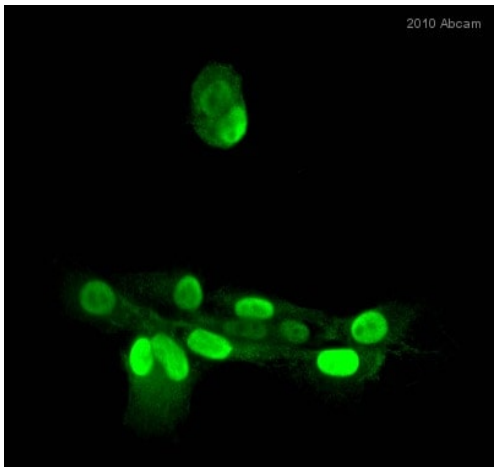
Lanes 2-5 : Anti-Twist antibody [Twist2C1a] (ab50887) at 1/50 dilution

Lane 1 : Marker lane
Lane 2 : Hela whole cell lysate, 25µg
Lane 3 : A2058 whole cell lysate, 25µg
Lane 4 : NIH3T3 whole cell lysate, 25µg
Lane 5 : F2408 whole cell lysate, 25µg

Predicted band size: 21 kDa
Observed band size: 25 kDa

Exposure time: 2 minutes

SDS-PAGE with 10-20% gradient gel.



Immunocytochemistry - Anti-Twist antibody [Twist2C1a] - ChIP Grade (ab50887)
This image is courtesy of an anonymous Abreview

ab50887 staining Twist in a rat choroid plexus cell line by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with Triton X-100 0.1% in PBS and blocked with 0.5% BSA for 30 minutes at room temperature. Samples were incubated with primary antibody (1/50 in PBS + 0.5% BSA) for 16 hours at 4°C. A FITC-conjugated Goat anti-mouse IgG polyclonal (1/80) was used as the secondary antibody.

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