

**TWIST1 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1809a****Specification****TWIST1 Antibody - Product Information**

Application	E, WB, IF, FC, IHC
Primary Accession	<a href="#">Q15672</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	21kDa KDa

**Description**

Basic helix-loop-helix (bHLH) transcription factors have been implicated in cell lineage determination and differentiation. The protein encoded by this gene is a bHLH transcription factor and shares similarity with another bHLH transcription factor, Dermo1. The strongest expression of this mRNA is in placental tissue; in adults, mesodermally derived tissues express this mRNA preferentially. Mutations in this gene have been found in patients with Saethre-Chotzen syndrome.

**Immunogen**

Purified recombinant fragment of human TWIST1 (AA: 9-74) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**TWIST1 Antibody - Additional Information**

**Gene ID** 7291

**Other Names**

Twist-related protein 1, Class A basic helix-loop-helix protein 38, bHLHa38, H-twist, TWIST1, BHLHA38, TWIST

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
IF~~1/200 - 1/1000  
FC~~1/200 - 1/400  
IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

TWIST1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## TWIST1 Antibody - Protein Information

**Name** TWIST1

**Synonyms** BHLHA38, TWIST

### Function

Acts as a transcriptional regulator. Inhibits myogenesis by sequestering 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 pro-inflammatory 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. Represses the activity of the circadian transcriptional activator: NPAS2-BMAL1 heterodimer (By similarity).

### Cellular Location

Nucleus.

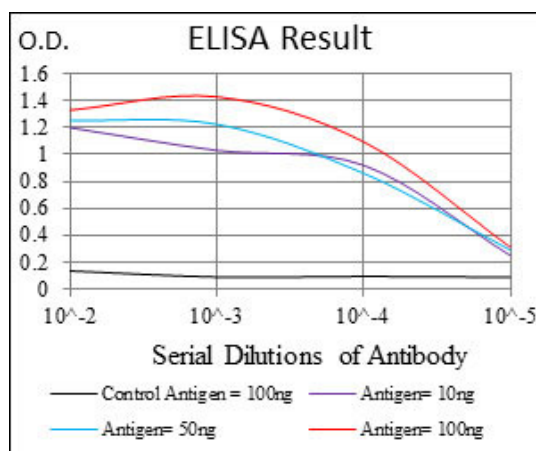
### Tissue Location

Subset of mesodermal cells.

## TWIST1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



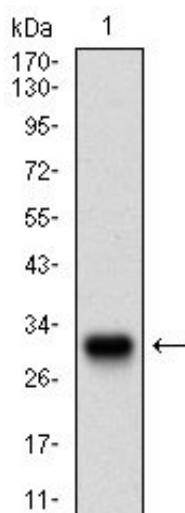


Figure 1: Western blot analysis using TWIST1 mAb against human TWIST1 recombinant protein. (Expected MW is 31.9 kDa)

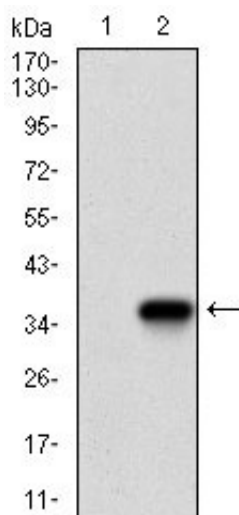


Figure 2: Western blot analysis using TWIST1 mAb against HEK293 (1) and TWIST1 (AA: 9-74)-hlgGfc transfected HEK293 (2) cell lysate.

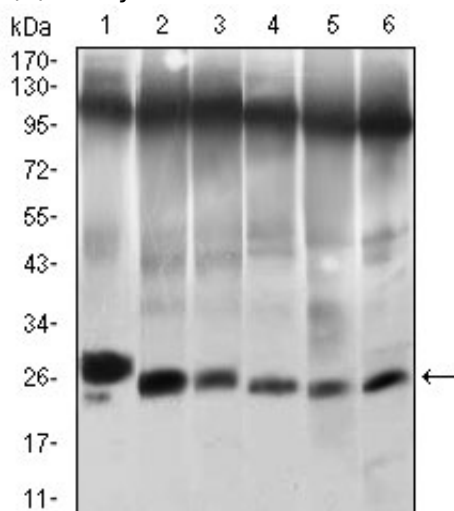


Figure 3: Western blot analysis using TWIST1 mouse mAb against NIH/3T3 (1), JURKAT (2), HELA (3), A549 (4), RAJI (5) and OCM-1 (6) cell lysate.

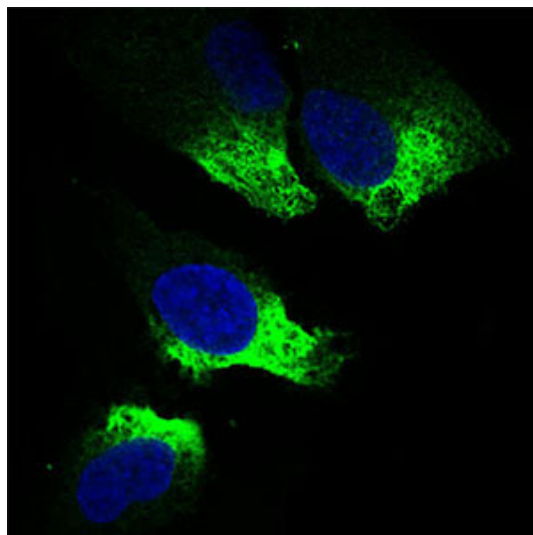


Figure 4: Immunofluorescence analysis of Hela cells using TWIST1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

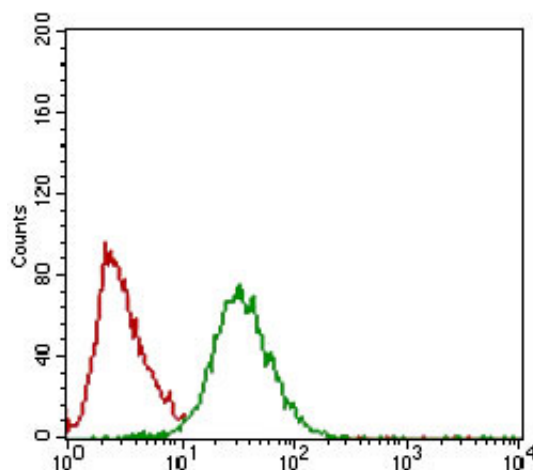


Figure 5: Flow cytometric analysis of Hela cells using TWIST1 mouse mAb (green) and negative control (red).

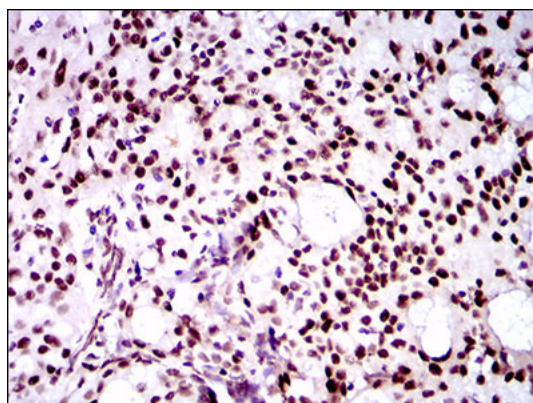


Figure 6: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using TWIST1 mouse mAb with DAB staining.

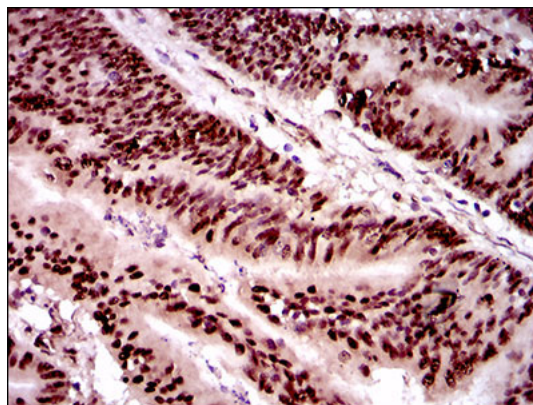


Figure 7: Immunohistochemical analysis of paraffin-embedded colon cancer tissues using TWIST1 mouse mAb with DAB staining.

#### **TWIST1 Antibody - Background**

Basic helix-loop-helix (bHLH) transcription factors have been implicated in cell lineage determination and differentiation. The protein encoded by this gene is a bHLH transcription factor and shares similarity with another bHLH transcription factor, Dermo1. The strongest expression of this mRNA is in placental tissue; in adults, mesodermally derived tissues express this mRNA preferentially. Mutations in this gene have been found in patients with Saethre-Chotzen syndrome. ; ;

#### **TWIST1 Antibody - References**

1. Cancer Res. 2013 Jan 15;73(2):662-71.
2. Cancer Res. 2012 Dec 15;72(24):6382-92.