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TWIST1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1774a

Product Information

Application	WB, E
Primary Accession	Q15672
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2F8E7
Isotype	IgG2b
Calculated MW	20954
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

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	WB~~1/500 - 1/2000 E~~1/10000
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.

Protein Information

Name	TWIST1

Synonyms	BHLHA38, TWIST
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 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.

References

1.J Cancer Res Clin Oncol. 2011 Oct;137(10):1487-93. 2.Cancer Res. 2011 Jan 1;71(1):245-54.

Images

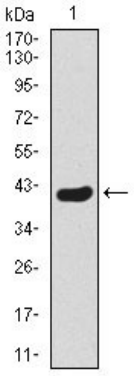

Figure 1: Western blot analysis using TWIST1 mAb against human TWIST1 recombinant protein. (Expected MW is 40 kDa)