AbFlex® TWIST antibody (rAb)

Catalog Nos: 91323, 91324
RRID: AB_3216334
Application(s): ChIP, ChIP-Seq, WB
Reactivity: Human

Quantities: 100 µg, 10 µg
Purification: Protein A Chromatography
Host: Mouse
Isotype: IgG2a
Molecular Weight: 21 kDa

Background: AbFlex® antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis Tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. AbFlex® TWIST antibody was expressed in was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells.

TWIST is a regulator of transcription that serves as a master regulator of embryonic morphogenesis. Through its bHLH motif it interacts with many different transcription factors to affect multiple pathways of gene expression. TWIST plays a pivotal role in mesodermal, myoblast, and osteoblast differentiation. TWIST is involved in the epithelial–mesenchymal transition (EMT), a period during embryonic development characterized by loss of cell adhesion and increased cell mobility, essential events for mesoderm and neural tube formation. The EMT shares many features of metastatic cancer, and elevated levels of TWIST are observed in many types of cancer. Mutations in the gene encoding TWIST have been associated with Saethre-Chotzen syndrome, an inherited developmental disorder characterized by skull deformations, limb abnormalities, and facial dysmorphisim.

Immunogen: This antibody was raised against a recombinant protein corresponding to full length mouse TWIST1 (twist homolog 1 (Drosophila)).

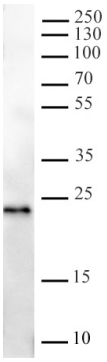
Buffer: 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide, and 30% glycerol. Sodium azide is highly toxic.

Application Notes:
Applications Validated by Active Motif:
ChIP-Seq: 4 µg per ChIP
WB: 2 - 4 µg/ml

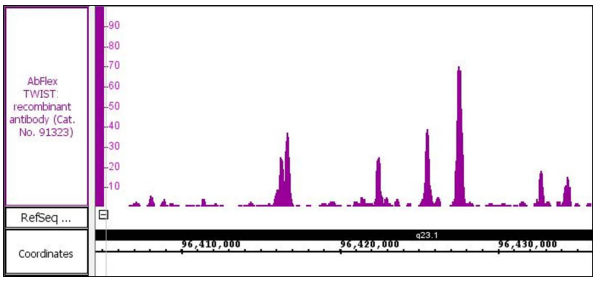
Note: Endogenous expression of TWIST is low in many cell lines so that more cell lysate and/or more Antibody may be required for detection in WB. The addition of Tween can also improve sensitivity (tested at 0.05%); however, but other bands at higher molecular weight may be detected using this method.

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



AbFlex® TWIST Antibody (rAb) tested by Western blot
50 µg of SH-SY5Y nuclear extract extract was run on SDS-PAGE and probed with antibody at 2 µg/ml.



AbFlex® TWIST Antibody (rAb) tested by ChIP-Seq.
ChIP was performed using the ChIP-IT® High Sensitivity Kit (Cat. No. 53040) with 30 µg of chromatin from human brain tissue and 4 µg of antibody. ChIP DNA was sequenced on the Illumina HiSeq and sequence tags were mapped to identify TWIST binding sites across a region of chromosome 12.