ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Twist-related Protein 2 (Twist2; Dermo-1**) Antibodies**

Cat # TWST21-P	Mouse Twist2 Control/Blocking Peptide	**SIZE**: 100 µg
Cat # TWST21-A	Rabbit anti- mouse Twist2 IgG (affinity pure)	**SIZE**: 100 µg

Basic helix-loop-helix (bHLH) transcription factors have been implicated in cell lineage determination and differentiation. The protein encoded by Twist gene is a bHLH transcription factor and shares similarity with another bHLH transcription factor, Twist. It is thought that during osteoblast development this protein may inhibit osteoblast maturation and maintain cells in a preosteoblast phenotype.

Twist and Dermo1, also called Twist1 and Twist2 respectively, were induced by a cytokine signaling pathway that required the dorsal-related protein Rela, a member of the nuclear factor kappa-B family of transcription factors, in mice. Twist1 and Twist2 repressed cytokine gene expression through interaction with Rela. TWIST proteins regulate cytokine signaling by establishing a negative feedback loop that represses the NFKB-dependent cytokine pathway.

TWIST2: rat, mouse, human: 160 aa each – 18.1 kDa; Human chromosome: 2q37.3. Protein homology between mose, rat and human Twist2 is 99%. Twist2 expression is restricted to dermis and perichondrium.

Source of Antigen, Antibodies

Antigen	20- aa peptide of Mouse Twist2 (Protein accession # Q9D030; ref. 1); designated as TFF11-P control/blocking peptide conjugated to KLH; epitope location ~ N-terminus
Antibody host/type	Rabbit, Polyclonal IgG (Cat # TWST21-A), purified over antigen-Agarose
Secondary Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
Negative Control Ab	Non-immune rabbit IgG (Cat # 20009-1) to be used as –ve control for ELISA, WB, IHC etc.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20^{0}C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20^{o}C or below.
Shipping: 4^{o}C for solutions and room temp for powder.

Recommended Usage

Western Blotting: 1-10 µg/ml; using affinity pure antibody (chemiluminescence technique).

ELISA: 1:100K; using 50-100 ng control peptide/well.

Histochemistry & Immunofluorescence: Not tested; we recommend the use of affinity purified antibody at 2-10 µg/ml.

Specificity & Cross-reactivity

Mouse TWST21-P peptide sequence is 100% homologous to rat with no identities to human TWST2 protein. Antibody cross-reactivity in various species is not known. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

General References:

(1) Li L., et al., (1995) Dev. Biol. 172:280-292.

List of related items, data sheets, and publications, using ADI antibodies is posted on the web site

*This product is for in vitro research use only.