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Twist2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58127

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q8WVJ9
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18124
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Twist2
Epitope Specificity	75-160/160
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Note=Mainly nuclear during embryonic development. Cytoplasmic in adult tissues.
SIMILARITY	Contains 1 basic helix-loop-helix (bHLH) domain.
SUBUNIT	Efficient DNA binding requires dimerization with another bHLH protein. Forms a heterodimer with TCF3/E12. Also interacts with MEF2C (By similarity).
DISEASE	Focal facial dermal dysplasia 3, Setleis type (FFDD3) [MIM:227260]: A form of focal facial dermal dysplasia, a group of developmental defects characterized by bitemporal or preauricular skin lesions resembling aplasia cutis congenita. FFDD3 is characterized by distinctive bitemporal scar-like depressions resembling forceps marks, and additional facial features, including a coarse and leonine appearance, absent eyelashes on both lids or multiple rows on the upper lids, absent Meibomian glands, slanted eyebrows, chin clefting, and hypo- or hyperpigmentation of the skin. Histologically, the bitemporal lesion is an ectodermal dysplasia with near absence of subcutaneous fat, suggesting insufficient migration of neural crest cells into the frontonasal process and the first branchial arch. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Twist2 (Twist homolog 2) is a basic helix-loop-helix (bHLH) transcription factor which acts as a transcriptional repressor. It binds to the E-box consensus sequence 5'-CANNTG-3' and inhibits transcriptional activation by MYOD1, MYOG, MEF2A and MEF2C. Efficient DNA binding requires dimerization with another bHLH protein. Twist2 inhibits the premature or ectopic differentiation of preosteoblast cells during osteogenesis.

Additional Information

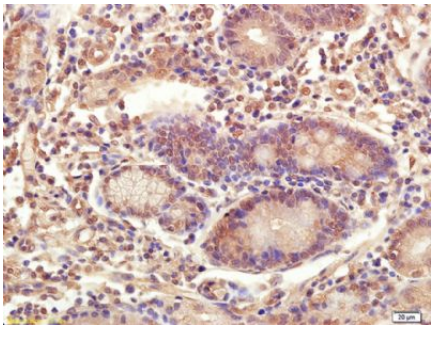
Gene ID	117581

Other Names	Twist-related protein 2, Class A basic helix-loop-helix protein 39, bHLHa39, Dermis-expressed protein 1, Dermo-1, TWIST2, BHLHA39, DERMO1
Target/Specificity	In the embryo, highly expressed in chondrogenic cells. In embryonic skin, expressed in the undifferentiated mesenchymal layer beneath the epidermis which later develops into the dermis. Expressed in early myeloid cells but not in lymphoid cells in the liver. Expression also detected in the secretory ependymal epithelium of the choroid plexus primordium. In the adult, expressed in secreting glandular tissues and tubules.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TWIST2
Synonyms	BHLHA39, DERMO1
Function	Binds to the E-box consensus sequence 5'-CANNTG-3' as a heterodimer and inhibits transcriptional activation by MYOD1, MYOG, MEF2A and MEF2C. Also represses expression of pro-inflammatory cytokines such as TNFA and IL1B. Involved in postnatal glycogen storage and energy metabolism (By similarity). Inhibits the premature or ectopic differentiation of preosteoblast cells during osteogenesis, possibly by changing the internal signal transduction response of osteoblasts to external growth factors.
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981, ECO:0000269|PubMed:11062344}. Cytoplasm Note=Mainly nuclear during embryonic development. Cytoplasmic in adult tissues
Tissue Location	In the embryo, highly expressed in chondrogenic cells. In embryonic skin, expressed in the undifferentiated mesenchymal layer beneath the epidermis which later develops into the dermis Expressed in early myeloid cells but not in lymphoid cells in the liver. Expression also detected in the secretory ependymal epithelium of the choroid plexus primordium. In the adult, expressed in secreting glandular tissues and tubules.

Images



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-Twist2 Polyclonal Antibody, Unconjugated(AP58127) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.