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TBX1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9383b

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	O43435
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	43133
Antigen Region	327-356

Additional Information

Gene ID	6899
Other Names	T-box transcription factor TBX1, T-box protein 1, Testis-specific T-box protein, TBX1
Target/Specificity	This TBX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 327-356 amino acids from the C-terminal region of human TBX1.
Dilution	WB~~1:1000 IF~~1:10~50 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TBX1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TBX1 {ECO:0000303|PubMed:9268629, ECO:0000312|HGNC:HGNC:11592}
Function	Transcription factor that plays a key role in cardiovascular development by promoting pharyngeal arch segmentation during embryonic development (By similarity). Also involved in craniofacial muscle development (By similarity). Together with NKX2-5, acts as a regulator of asymmetric cardiac

morphogenesis by promoting expression of PITX2 (By similarity). Acts upstream of TBX1 for the formation of the thymus and parathyroid glands from the third pharyngeal pouch (By similarity). Required for hair follicle stem cell self-renewal (By similarity). Binds to the palindromic T site 5'-TTCACACCTAGGTGTGAA-3' DNA sequence (PubMed:11111039, PubMed:22095455).

Cellular Location Nucleus {ECO:0000255|PROSITE-ProRule:PRU00201}.

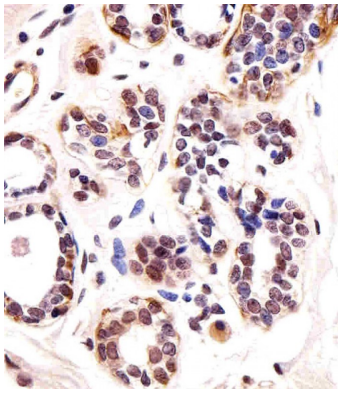
Background

TBX1 is a member of a phylogenetically conserved family of genes that share a common DNA-binding domain, the T-box. T-box genes encode transcription factors involved in the regulation of developmental processes. This gene product shares 98% amino acid sequence identity with the mouse ortholog. DiGeorge syndrome (DGS)/velocardiofacial syndrome (VCFS), a common congenital disorder characterized by neural-crest-related developmental defects, has been associated with deletions of chromosome 22q11.2, where this gene has been mapped. Studies using mouse models of DiGeorge syndrome suggest a major role for this gene in the molecular etiology of DGS/VCFS. Several alternatively spliced transcript variants encoding different isoforms have been described for this gene.

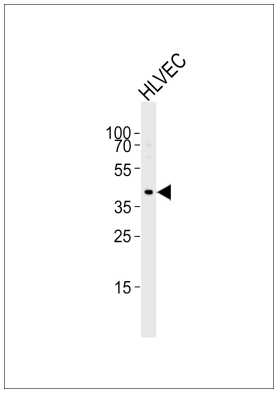
References

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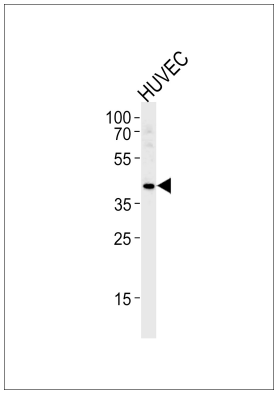
Images



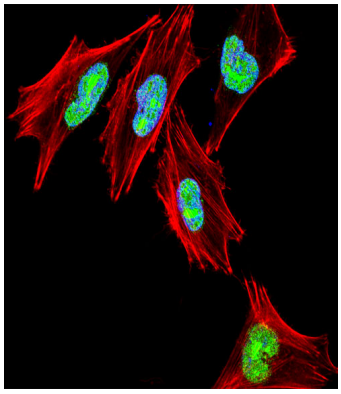
Immunohistochemical analysis of paraffin-embedded H. breast section using TBX1 Antibody (C-term)(Cat#AP9383b). AP9383b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



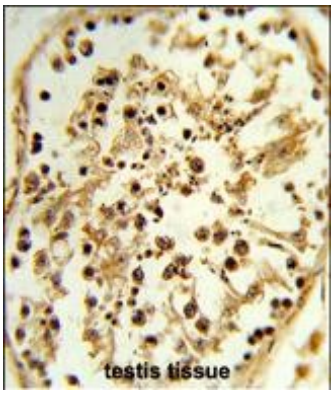
Western blot analysis of lysate from HLVEC cell line, using TBX1 Antibody (C-term) (Cat. #AP9383b). AP9383b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.



TBX1 Antibody (C-term) (Cat. #AP9383b) western blot analysis in HLVEC cell line lysates (35ug/lane).This demonstrates the TBX1 antibody detected the TBX1 protein (arrow).



Fluorescent confocal image of A2058 cell stained with TBX1 Antibody (C-term)(Cat#AP9383b). A2058 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with TBX1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). TBX1 immunoreactivity is localized to nucleus significantly.



Formalin-fixed and paraffin-embedded human testis tissue reacted with TBX1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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