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TBX5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14687A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q99593
Other Accession	NP_542449.1, NP_852259.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34604
Calculated MW	57711
Antigen Region	1-30

Additional Information

Gene ID	6910
Other Names	T-box transcription factor TBX5, T-box protein 5, TBX5
Target/Specificity	This TBX5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human TBX5.
Dilution	WB~~1:1000 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	TBX5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TBX5
Function	DNA-binding protein that regulates the transcription of several genes and is involved in heart development and limb pattern formation (PubMed:25725155, PubMed:25963046, PubMed:26917986, PubMed:27035640, PubMed:29174768, PubMed:8988164). Binds to the core

DNA motif of NPPA promoter (PubMed:26926761).

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00201, ECO:0000269|PubMed:29174768}. Cytoplasm Note=Shuttles between the cytoplasm and the nucleus. Acetylation at Lys-339 promotes nuclear retention.

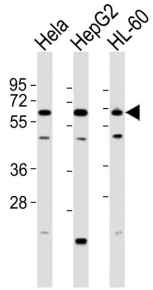
Background

This gene 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 is closely linked to related family member T-box 3 (ulnar mammary syndrome) on human chromosome 12. The encoded protein may play a role in heart development and specification of limb identity. Mutations in this gene have been associated with Holt-Oram syndrome, a developmental disorder affecting the heart and upper limbs. Several transcript variants encoding different isoforms have been described for this gene.

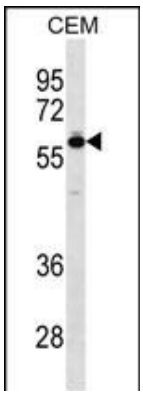
References

Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Stirnimann, C.U., et al. J. Mol. Biol. 400(1):71-81(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Hong, K.W., et al. J. Hum. Genet. 55(6):336-341(2010)

Images

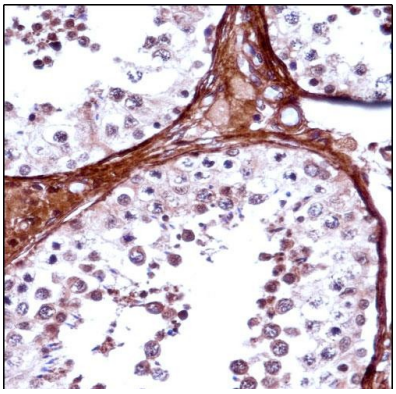


All lanes : Anti-TBX5 Antibody (N-term) at 1:2000 dilution Lane 1: Hela whole cell lysates Lane 2: HepG2 whole cell lysates Lane 3: HL-60 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



TBX5 Antibody (N-term) (Cat. #AP14687a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the TBX5 antibody detected the TBX5 protein (arrow).

TBX5 Antibody (N-term) (AP14687a)immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue



followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of TBX5 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- A Comprehensive TALEN-Based Knockout Library for Generating Human Induced Pluripotent Stem Cell-Based Models for Cardiovascular Diseases.