

TBX2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17196c

Specification

TBX2 Antibody (Center) - Product Information

| | |
|-------------------|-----------------------------|
| Application | WB,E |
| Primary Accession | O13207 |
| Other Accession | NP_005985.3 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Calculated MW | 75066 |
| Antigen Region | 414-442 |

TBX2 Antibody (Center) - Additional Information

Gene ID 6909

Other Names

T-box transcription factor TBX2, T-box protein 2, TBX2

Target/Specificity

This TBX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 414-442 amino acids from the Central region of human TBX2.

Dilution

WB~~1:1000

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

TBX2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TBX2 Antibody (Center) - Protein Information

Name TBX2

Function Transcription factor which acts as a transcriptional repressor (PubMed:[11062467](#), PubMed:[11111039](#), PubMed:[12000749](#), PubMed:[22844464](#), PubMed:[30599067](#)). May also function

as a transcriptional activator (By similarity). Binds to the palindromic T site 5'-TTCACACCTAGGTGTGAA-3' DNA sequence, or a half-site, which are present in the regulatory region of several genes (PubMed:[11111039](#), PubMed:[12000749](#), PubMed:[22844464](#), PubMed:[30599067](#)). Required for cardiac atrioventricular canal formation (PubMed:[29726930](#)). May cooperate with NKX2.5 to negatively modulate expression of NPPA/ANF in the atrioventricular canal (By similarity). May play a role as a positive regulator of TGFB2 expression, perhaps acting in concert with GATA4 in the developing outflow tract myocardium (By similarity). Plays a role in limb pattern formation (PubMed:[29726930](#)). Acts as a transcriptional repressor of ADAM10 gene expression, perhaps in concert with histone deacetylase HDAC1 as cofactor (PubMed:[30599067](#)). Involved in branching morphogenesis in both developing lungs and adult mammary glands, via negative modulation of target genes; acting redundantly with TBX3 (By similarity). Required, together with TBX3, to maintain cell proliferation in the embryonic lung mesenchyme; perhaps acting downstream of SHH, BMP and TGFbeta signaling (By similarity). Involved in modulating early inner ear development, acting independently of, and also redundantly with TBX3, in different subregions of the developing ear (By similarity). Acts as a negative regulator of PML function in cellular senescence (PubMed:[22002537](#)). Acts as a negative regulator of expression of CDKN1A/p21, IL33 and CCN4; repression of CDKN1A is enhanced in response to UV-induced stress, perhaps as a result of phosphorylation by p38 MAPK (By similarity). Negatively modulates expression of CDKN2A/p14ARF and CDH1/E-cadherin (PubMed:[11062467](#), PubMed:[12000749](#), PubMed:[22844464](#)). Plays a role in induction of the epithelial-mesenchymal transition (EMT) (PubMed:[22844464](#)). Plays a role in melanocyte proliferation, perhaps via regulation of cyclin CCND1 (By similarity). Involved in melanogenesis, acting via negative modulation of expression of DHICA oxidase/TYRP1 and P protein/OCA2 (By similarity). Involved in regulating retinal pigment epithelium (RPE) cell proliferation, perhaps via negatively modulating transcription of the transcription factor CEBPD (PubMed:[28910203](#)).

Cellular Location

Nucleus

Tissue Location

Expressed primarily in adult in kidney, lung, and placenta. Weak expression in heart and ovary

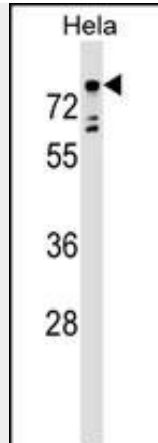
TBX2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TBX2 Antibody (Center) - Images





TBX2 Antibody (Center) (Cat. #AP17196c) western blot analysis in HeLa cell line lysates (35ug/lane). This demonstrates the TBX2 antibody detected the TBX2 protein (arrow).

TBX2 Antibody (Center) - 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 product is the human homolog of mouse Tbx2, and shares strong sequence similarity with Drosophila omb protein. Expression studies indicate that this gene may have a potential role in tumorigenesis as an immortalizing agent. Transcript heterogeneity due to alternative polyadenylation has been noted for this gene.

TBX2 Antibody (Center) - References

Vance, K.W., et al. Mol. Biol. Cell 21(15):2770-2779(2010)
Radio, F.C., et al. Am. J. Med. Genet. A 152A (8), 2061-2066 (2010) :
Kottgen, A., et al. Nat. Genet. 42(5):376-384(2010)
Zhao, J., et al. BMC Med. Genet. 11, 96 (2010) :
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