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TBX3 Rabbit pAb

Catalog # AP97428

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O15119
Other Accession	O15119
Reactivity	Rat, Mouse
Predicted	Human, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79389
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TBX3
Epitope Specificity	181-280/743
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 T-box DNA-binding domain.
DISEASE	Defects in TBX3 are the cause of ulnar-mammary syndrome (UMS) [MIM:181450]. UMS is characterized by ulnar ray defects, obesity, hypogenitalism, delayed puberty, hypoplasia of nipples and apocrine glands.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Tbx3 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. Tbx3 is a transcriptional repressor and is thought to play a role in the anterior/posterior axis of the tetrapod forelimb. Mutations in this gene cause ulnar mammary syndrome, affecting limb, apocrine gland, tooth, hair, and genital development. Alternative splicing of this gene results in three transcript variants encoding different isoforms; however, the full length nature of one variant has not been determined.

Additional Information

Gene ID	6926
Other Names	TBX3-ISO; UMS; XHL; D5Ertd189e; TBX3_HUMAN; TBX3; T-box protein 3; TBX3_MOUSE; TBX3_RAT; T-box transcription factor 3; ulnar mammary syndrome; T-box 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	TBX3
Function	Transcriptional repressor involved in developmental processes (PubMed:10468588). 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:12000749). Probably plays a role in limb pattern formation (PubMed:10468588). Required for mammary placode induction, and maintenance of the mammary buds during development (By similarity). Involved in branching morphogenesis in both developing lungs and adult mammary glands, via negative modulation of target genes; acting redundantly with TBX2 (By similarity). Required, together with TBX2, 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, TBX2 in different subregions of the developing ear (By similarity). Acts as a negative regulator of PML function in cellular senescence (PubMed:22002537).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00201}.
Tissue Location	Widely expressed.

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