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ATBF1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54629

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q15911
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	404419
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ATBF1
Epitope Specificity	301-400/3703
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	Nuclear
SIMILARITY	Contains 22 C2H2-type zinc fingers. Contains 4 homeobox DNA-binding domains.
SUBUNIT	Interacts with FNBP3 (By similarity). Interacts with PIAS3.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	AT-motif binding factor 1 (ATBF1) binds to the AT-rich core sequence element in the human a-fetoprotein enhancer (1). Alternative splicing generates the ATBF1-A and ATBF1-B (2,3). While ATBF1-A contains a 920-amino acid extension at the N-terminus, both ATBF1-A and ATBF1-B contain 4 DNA-binding homeobox domains (2,3). Additionally, ATBF1-A contains 23 zinc finger motifs while ATBF1-B contains 18 zinc finger motifs (1–3). The N-terminal extension unique to ATBF1-A has transcriptional repressor activity (4). In the small intestine, ATBF1-A inhibits expression of the brushborder enzyme aminopeptidase-N through direct binding to the AT motif element (5). Besides functioning in transcription regulation, ATBF1 also functions in ATPase activity (6). ATPase activity associated with ATBF1-A is DNA/RNA-dependent and requires both homeobox domains and zinc finger motifs (6). ATBF1 is highly expressed in spleen and brain tissues (7). The gene encoding human ATBF1 maps to chromosome 16q22.3-q23.1 (8).

Additional Information

Gene ID	463
Other Names	Zinc finger homeobox protein 3, AT motif-binding factor 1, AT-binding transcription factor 1, Alpha-fetoprotein enhancer-binding protein, Zinc finger

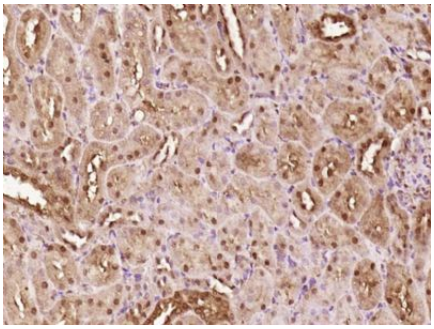
	homeodomain protein 3, ZFH-3, ZFHX3, ATBF1, C16orf47 {ECO:0000312|HGNC:HGNC:777}
Target/Specificity	Not found in normal gastric mucosa but found in gastric carcinoma cells (at protein level).
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) 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	ZFHX3
Synonyms	ATBF1, C16orf47 {ECO:0000312|HGNC:HGNC:7
Function	Transcriptional regulator which can act as an activator or a repressor. Inhibits the enhancer element of the AFP gene by binding to its AT-rich core sequence. In concert with SMAD-dependent TGF-beta signaling can repress the transcription of AFP via its interaction with SMAD2/3 (PubMed:25105025). Regulates the circadian locomotor rhythms via transcriptional activation of neuropeptidergic genes which are essential for intercellular synchrony and rhythm amplitude in the suprachiasmatic nucleus (SCN) of the brain (By similarity). Regulator of myoblasts differentiation through the binding to the AT-rich sequence of MYF6 promoter and promoter repression (PubMed:11312261). Down-regulates the MUC5AC promoter in gastric cancer (PubMed:17330845). In association with RUNX3, up-regulates CDKN1A promoter activity following TGF-beta stimulation (PubMed:20599712). Inhibits estrogen receptor (ESR1) function by selectively competing with coactivator NCOA3 for binding to ESR1 in ESR1-positive breast cancer cells (PubMed:20720010).
Cellular Location	Nucleus. Cytoplasm Note=Translocates from the cytoplasm to the nucleus following TGF-beta stimulation. Expressed in nuclear body (NB)-like dots in the nucleus some of which overlap or closely associate with PML body
Tissue Location	Not found in normal gastric mucosa but found in gastric carcinoma cells (at protein level). Expression is higher in ER- positive breast tumors than ER-negative breast tumors (at protein level).

Images

Paraformaldehyde-fixed, paraffin embedded (Rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ATBF1) Polyclonal Antibody, Unconjugated (AP54629) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



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