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LEF1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12048A

Product Information

Application	WB, IF, E
Primary Accession	Q9UJU2
Other Accession	Q9QXN1, P27782, NP_057353.1
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31989
Calculated MW	44201
Antigen Region	10-37

Additional Information

Gene ID	51176
Other Names	Lymphoid enhancer-binding factor 1, LEF-1, T cell-specific transcription factor 1-alpha, TCF1-alpha, LEF1
Target/Specificity	This LEF1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 10-37 amino acids from the N-terminal region of human LEF1.
Dilution	WB~~1:2000 IF~~1:10~50 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	LEF1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LEF1 (HGNC:6551)
Function	Transcription factor that binds DNA in a sequence-specific manner (PubMed:2010090). Participates in the Wnt signaling pathway (By similarity).

	Activates transcription of target genes in the presence of CTNNB1 and EP300 (By similarity). PIAG antagonizes both Wnt-dependent and Wnt-independent activation by LEF1 (By similarity). TLE1, TLE2, TLE3 and TLE4 repress transactivation mediated by LEF1 and CTNNB1 (PubMed:11266540). Regulates T-cell receptor alpha enhancer function (PubMed:19653274). Required for IL17A expressing gamma-delta T-cell maturation and development, via binding to regulator loci of BLK to modulate expression (By similarity). Acts as a positive regulator of odontoblast differentiation during mesenchymal tooth germ formation, expression is repressed during the bell stage by MSX1-mediated inhibition of CTNNB1 signaling (By similarity). May play a role in hair cell differentiation and follicle morphogenesis (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00267}. Note=Found in nuclear bodies upon PIASG binding.
Tissue Location	Detected in thymus. Not detected in normal colon, but highly expressed in colon cancer biopsies and colon cancer cell lines. Expressed in several pancreatic tumors and weakly expressed in normal pancreatic tissue. Isoforms 1 and 5 are detected in several pancreatic cell lines.

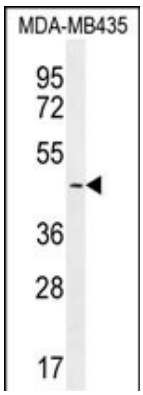
Background

This gene encodes a transcription factor belonging to a family of proteins that share homology with the high mobility group protein-1. The protein encoded by this gene can bind to a functionally important site in the T-cell receptor-alpha enhancer, thereby conferring maximal enhancer activity. This transcription factor is involved in the Wnt signaling pathway, and it may function in hair cell differentiation and follicle morphogenesis. Mutations in this gene have been found in somatic sebaceous tumors. This gene has also been linked to other cancers, including androgen-independent prostate cancer. Alternative splicing results in multiple transcript variants.

References

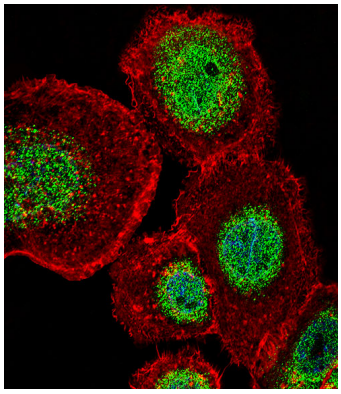
Gutierrez, A. Jr., et al. Blood 116(16):2975-2983(2010)
Kalsi, G., et al. Hum. Mol. Genet. 19(12):2497-2506(2010)
Chen, Q.Y., et al. J. Immunol. 184(9):5047-5054(2010)
Beagle, B., et al. PLoS ONE 5 (7), E11821 (2010) :
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :

Images



LEF1 Antibody (N-term) (Cat. #AP12048a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the LEF1 antibody detected the LEF1 protein (arrow).

Fluorescent confocal image of A431 cell stained with LEF1 Antibody (N-term)(Cat#AP12048a).A431 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100



(0.1%, 10 min), then incubated with LEF1 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). LEF1 immunoreactivity is localized to Nucleus significantly and Cytoplasm weakly.

Citations

- Methylprednisolone suppresses the Wnt signaling pathway in chronic lymphocytic leukemia cell line MEC-1 regulated by LEF-1 expression.
- Overexpression of miR□214 promotes the progression of human osteosarcoma by regulating the Wnt/β□catenin signaling pathway.
- The intervention of intestinal Wnt/β-catenin pathway alters inflammation and disease severity of CIA

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