For Research Use Only

LEF1 Polyclonal antibody

Catalog Number:28540-1-AP 4 Publications

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Basic Information

Catalog Number:
28540-1-AP

Size:
700 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG29841

GenBank Accession Number:
BC050632

GeneID (NCBI):
51176

ENSEMBL Gene ID:
ENSG00000138795

UNIPROT ID:
Q9UJU2

Full Name:
lymphoid enhancer-binding factor 1

Calculated MW:
37 kDa

Observed MW:
50 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:50000
IF 1:50-1:500

Applications

Tested Applications:
IF/ICC, WB, ELISA

Cited Applications:
WB

Species Specificity:
Human

Cited Species:
human, rat

Positive Controls:

WB : COLO 320 cells, SW480 cells, Jurkat cells

IF : HepG2 cells,

Background Information

Lymphoid enhancer-binding factor 1(LEF1) belongs to a family of regulatory protein share homology with high mobility group protein-1, and it's a nuclear protein exprssed in pre-B and T cells. LEF1 has a role in the Wnt signaling pathway and hair cell differentiation and follicle morphogenesis. LEF1 exists as seven isoforms and we detects three isoforms with MW 44 kDa, 36 kDa and 23 kDa. Together with CTNNB1 and EP300, LEF1 activates transcription of target genes. Isoform 5 transcriptionally activates the fibronectin promoter, binds to and represses transcription from the E-cadherin promoter in a CTNNB1-independent manner, and is involved in reducing cellular aggregation and increasing cell migration of pancreatic cancer cells. Isoform 1 transcriptionally activates MYC and CCND1 expression and enhances proliferation of pancreatic tumor cells. MECs can give rise to seven cell types of the SAE and SMGs following severe airway injury. MECs progressively adopted a basal cell phenotype on the SAE and established lasting progenitors capable of further regeneration following reinjury. MECs activate Wnt-regulated transcription factors (Lef-1/TCF7) following injury and Lef-1 induction in cultured MECs promoted transition to a basal cell phenotype. Surprisingly, dose-dependent MEC conditional activation of Lef-1in vivopromoted self-limited airway regeneration in the absence of injury. Thus, modulating the Lef-1 transcriptional program in MEC-derived progenitors may have regenerative medicine applications for lung diseases. (https://doi.org/10.1016/j.stem.2018.03.017) The phosphorylation may affects LEF1 protein's theoretical molecular weight when tested.40-70 kD bands have also been reported (PMID:22261717;17063141).

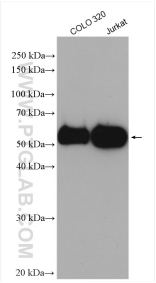
Notable Publications

Author	Pubmed ID	Journal	Application
Xiong Shu	36047666	Cancer Med	WB
Yin Liu	32009498	Int J Neurosci	WB
Yajun Luo	35485210	Clin Transl Med	WB

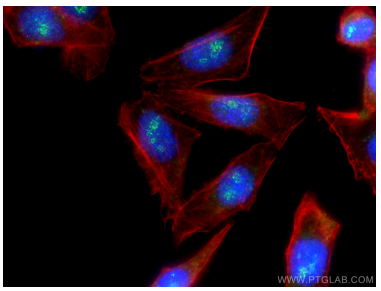
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 28540-1-AP (LEF1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 28540-1-AP (LEF1 antibody), at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).