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LEO1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1978a

Product Information

Application	WB, E
Primary Accession	Q8WVC0
Other Accession	NP_620147
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB10466
Calculated MW	75404
Antigen Region	130-159

Additional Information

Gene ID	123169
Other Names	RNA polymerase-associated protein LEO1, Replicative senescence down-regulated leo1-like protein, LEO1, RDL
Target/Specificity	This LEO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 130-159 amino acids from the N-terminal region of human LEO1.
Dilution	WB~~1:1000 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	LEO1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LEO1
Synonyms	RDL
Function	Component of the PAF1 complex (PAF1C) which has multiple functions

during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser- 5'-phosphorylated forms and is involved in transcriptional elongation, acting both independently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1; it promotes leukemogenesis through association with KMT2A/MLL1-rearranged oncoproteins, such as KMT2A/MLL1-MLLT3/AF9 and KMT2A/MLL1-MLLT1/ENL. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. In case of infection by influenza A strain H3N2, PAF1C associates with viral NS1 protein, thereby regulating gene transcription. Involved in polyadenylation of mRNA precursors. Connects PAF1C to Wnt signaling.

Cellular Location Nucleus.

Tissue Location Highly expressed in skeletal muscle and heart. Weakly expressed in placenta and liver.

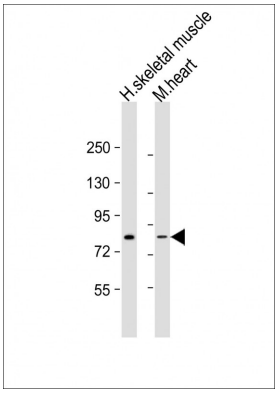
Background

The PAF1 complex is a multifunctional complex. The PAF1 complex interacts with POLR2A. It may be involved in both initiation and elongation, histone methylation and RNA processing. Overexpression of LEO1 induces cell growth arrest and premature senescence of fibroblasts.

References

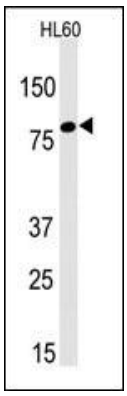
Zhao,L., FASEB J. 19 (6), 521-532 (2005)

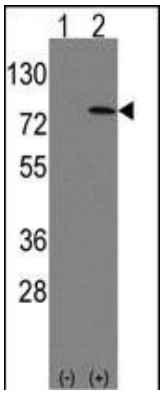
Images



All lanes : Anti-Leo1 Antibody (N-term) at 1:1000-1:2000 dilution Lane 1: human skeletal muscle lysate Lane 2: mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 75 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of anti-Leo1 Antibody (N-term) (Cat. #AP1978a) in HL60 cell line lysates (35ug/lane). Leo1(arrow) was detected using the purified Pab.





Western blot analysis of Leo1 (arrow) using rabbit polyclonal Leo1 Antibody (Human N-term) (Cat.#AP1978a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the Leo1 gene (Lane 2) (Origene Technologies).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.