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# Phospho-LEO1(S10) Antibody
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP3581a**

## Specification

### Phospho-LEO1(S10) Antibody - Product Information

| | |
|---|---|
| Application | **DB,E** |
| Primary Accession | Q8WVC0 |
| Other Accession | NP_620147 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **75404** |

### Phospho-LEO1(S10) Antibody - 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 phosphopeptide corresponding to amino acid residues surrounding S10 of human LEO1.

**Dilution**
DB~~1:500
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**
Phospho-LEO1(S10) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Phospho-LEO1(S10) Antibody - 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.

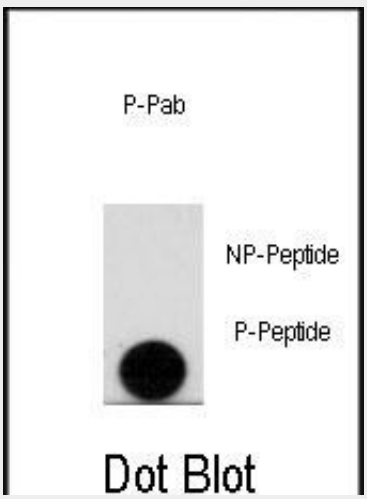
**Tissue Location**
Highly expressed in skeletal muscle and heart. Weakly expressed in placenta and liver.

## Phospho-LEO1(S10) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## Phospho-LEO1(S10) Antibody - Images



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Dot blot analysis of anti-Phospho-LEO1-pS10 Antibody (Cat.#AP3581a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

**Phospho-LEO1(S10) Antibody - Background**

The PAF1 complex is a multifunctional complex. The PAF1 complex interacts with POLR2A. 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.

**Phospho-LEO1(S10) Antibody - References**

Olsen JV, et al. (2006) Cell 127, 635-48