

Phospho-Leo1(S551) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3564a**Specification**

Phospho-Leo1(S551) Antibody Blocking peptide - Product InformationPrimary Accession
Other Accession[O8WVC0](#)
[NP_620147](#)**Phospho-Leo1(S551) Antibody Blocking peptide - Additional Information****Gene ID** 123169**Other Names**

RNA polymerase-associated protein LEO1, Replicative senescence down-regulated leo1-like protein, LEO1, RDL

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP3564a](/products/AP3564a) was selected from the region of human Phospho-Leo1-pS551. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-Leo1(S551) Antibody Blocking peptide - 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(S551) Antibody Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Phospho-Leo1(S551) Antibody Blocking peptide - Images**Phospho-Leo1(S551) Antibody Blocking peptide - 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.

Phospho-Leo1(S551) Antibody Blocking peptide - References

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