

**PIN1 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8959c****Specification****PIN1 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [Q13526](#)**PIN1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 5300**Other Names**Peptidyl-prolyl cis-trans isomerase  
NIMA-interacting 1, Peptidyl-prolyl cis-trans  
isomerase Pin1, PPlase Pin1, Rotamase  
Pin1, PIN1**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8959c](/products/AP8959c) was selected from the Center region of human PIN1. 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.

**PIN1 Antibody (Center) Blocking Peptide - Protein Information****Name** PIN1**PIN1 Antibody (Center) Blocking Peptide - Background**

PIN1 is an essential nuclear peptidylprolyl cis-trans isomerase (PPlase; EC 5.2.1.8) involved in regulation of mitosis.

**PIN1 Antibody (Center) Blocking Peptide - References**

Lu,K.P., et.al., Nature 380 (6574), 544-547 (1996)  
Campbell,H.D., et.al., Genomics 44 (2), 157-162 (1997)

**Function**

Peptidyl-prolyl cis/trans isomerase (PPIase) that binds to and isomerizes specific phosphorylated Ser/Thr-Pro (pSer/Thr-Pro) motifs (PubMed:<a href="http://www.uniprot.org/citations/21497122" target="\_blank">21497122</a>, PubMed:<a href="http://www.uniprot.org/citations/23623683" target="\_blank">23623683</a>, PubMed:<a href="http://www.uniprot.org/citations/29686383" target="\_blank">29686383</a>). By inducing conformational changes in a subset of phosphorylated proteins, acts as a molecular switch in multiple cellular processes (PubMed:<a href="http://www.uniprot.org/citations/21497122" target="\_blank">21497122</a>, PubMed:<a href="http://www.uniprot.org/citations/22033920" target="\_blank">22033920</a>, PubMed:<a href="http://www.uniprot.org/citations/23623683" target="\_blank">23623683</a>). Displays a preference for acidic residues located N-terminally to the proline bond to be isomerized. Regulates mitosis presumably by interacting with NIMA and attenuating its mitosis-promoting activity. Down-regulates kinase activity of BTK (PubMed:<a href="http://www.uniprot.org/citations/16644721" target="\_blank">16644721</a>). Can transactivate multiple oncogenes and induce centrosome amplification, chromosome instability and cell transformation. Required for the efficient dephosphorylation and recycling of RAF1 after mitogen activation (PubMed:<a href="http://www.uniprot.org/citations/15664191" target="\_blank">15664191</a>). Binds and targets PML and BCL6 for degradation in a phosphorylation-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/17828269" target="\_blank">17828269</a>). Acts as a regulator of JNK cascade by binding to phosphorylated FBXW7, disrupting FBXW7 dimerization and promoting FBXW7 autoubiquitination and degradation: degradation of FBXW7 leads to subsequent stabilization of JUN (PubMed:<a href="http://www.uniprot.org/citations/22608923" target="\_blank">22608923</a>). May facilitate the ubiquitination and proteasomal degradation of RBBP8/CtIP through CUL3/KLHL15 E3 ubiquitin-protein

ligase complex, hence favors DNA double-strand repair through error-prone non-homologous end joining (NHEJ) over error-free, RBBP8-mediated homologous recombination (HR) (PubMed:<a href="http://www.uniprot.org/citations/23623683" target="\_blank">23623683</a>, PubMed:<a href="http://www.uniprot.org/citations/27561354" target="\_blank">27561354</a>). Upon IL33-induced lung inflammation, catalyzes cis-trans isomerization of phosphorylated IRAK3/IRAK-M, inducing IRAK3 stabilization, nuclear translocation and expression of pro-inflammatory genes in dendritic cells (PubMed:<a href="http://www.uniprot.org/citations/29686383" target="\_blank">29686383</a>).

#### **Cellular Location**

Nucleus. Nucleus speckle. Cytoplasm  
Note=Colocalizes with NEK6 in the nucleus (PubMed:16476580). Mainly localized in the nucleus but phosphorylation at Ser-71 by DAPK1 results in inhibition of its nuclear localization (PubMed:21497122)

#### **Tissue Location**

Expressed in immune cells in the lung (at protein level) (PubMed:29686383). The phosphorylated form at Ser-71 is expressed in normal breast tissue cells but not in breast cancer cells

### **PIN1 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)