

## Human Recombinant PIN1

<b>CATALOG #:</b>	6304-100	100 µg
<b>ALTERNATE NAMES:</b>	Protein (peptidyl-prolyl cis/trans isomerase) NIMA-interacting 1, NIMA-interacting protein 1, DOD, UBL5, Rotamase Pin1, PPlase Pin1.	
<b>SOURCE:</b>	E.Coli	
<b>PURITY:</b>	> 95% by SDS - PAGE	
<b>MOL. WEIGHT:</b>	18.2 kDa (163 aa), confirmed by MALDI-TOF	
<b>ENDOTOXIN LEVEL:</b>	< 1.0 EU per 1 µg of protein (determined by LAL method)	
<b>FORMULATION:</b>	1 mg/ml solution in 20 mM Tris-HCl buffer (pH 7.5) containing 100 mM NaCl, 5 mM DTT, 20% glycerol.	

### STORAGE CONDITIONS:

Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

### DESCRIPTION:

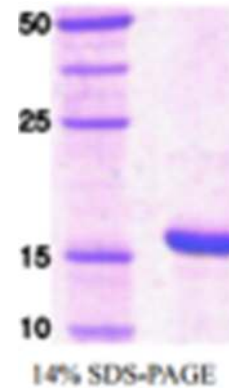
Human Pin 1 is a peptidyl-prolyl cis/trans isomerase (PPlase) that interacts with NIMA and essential for cell cycle regulation. Pin1 is nuclear PPlase containing a WW protein interaction domain, and is structurally and functionally related to Ess1/Ptf1, an essential protein in budding yeast. PPlase activity is necessary for Ess1/Pin1 function in yeast. Pin1 is thus an essential PPlase that regulates mitosis presumably by interacting with NIMA and attenuating its mitosis-promoting activity. Substrates of Pin1 include the mitotic regulators (Cdc25 phosphatase and NIMA, PLK I, Wee, and Myt1 kinases), several transcription factors like  $\beta$ -Catenin, c-Jun, and the tumor suppressor protein p53, and some specific proteins like the RNA Pol II, the cytoskeleton protein tau, and the G1/S protein Cyclin D1.

### AMINO ACID SEQUENCE:

MADEEKLPFG WEKMSRSSG RYYFNHITN ASQWERPSGN SSSGGKNGQG  
EPARVRCSHL LVKHSQSRPP SSWRQEKITR TKEEALELIN GYIQKIKSGE EDFESLASQF  
SDCSSAKARG DLGAFSRGQM QKPFEDASFA LRTGEMSGPV FTDSGIHIL RTE

### BIOLOGICAL ACTIVITY:

> 330 nmoles/min/mg, and is defined as the amount of enzyme that cleaves 1 µmole of Suc-AAFP-pNA per minute at 25°C in Tris HCl pH 8.0 using chymotrypsin.



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**FOR RESEARCH USE ONLY! Not to be used in humans.**

### RELATED PRODUCTS:

- Myt1L Antibody (Cat. No. 5304-100)
- PTP1B Antibody (Cat. No. 3171-100)
- PTP1B Antibody (Cat. No. 3174-100)
- PTP1B Antibody (Clone 107AT531) (Cat. No. 3122-100)
- Phosphoseek™ PTP1B Assay kit (Cat. No. K707-400)