

## PIN1

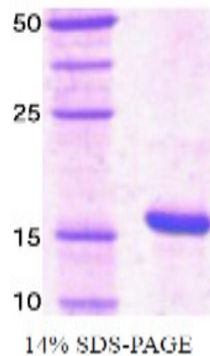
### Recombinant Human Peptidyl-prolyl cis-trans Isomerase NIMA-interacting 1

<b>Catalog No.</b>	CSI15633A CSI15633B	<b>Quantity:</b>	100 µg 500 µg
<b>Alternate Names:</b>	DOD, UBL5, peptidyl-prolyl cis/trans isomerase, NIMA-interacting, prolyl isomerase, protein (peptidyl-prolyl cis/trans isomerase) NIMA-interacting 1, protein (peptidylprolyl cis/trans isomerase) NIMA-interacting 1		
<b>Description:</b>	Human Pin 1 is a peptidyl-prolyl cis/trans isomerase (PPlase) that interacts with NIMA and essential for cell cycle regulation. Pin1 is a 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.		
<b>Concentration:</b>	1 mg/ml (determined by Bradford assay)		
<b>GeneID:</b>	5300		
<b>Protein Accession No:</b>	NP_006212		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	18.2 kDa (163 aa), confirmed by MALDI-TOF.		
<b>Formulation:</b>	Liquid. In 20 mM Tris-HCl buffer(pH7.5) 0.1M NaCl, 5mM DTT, 20% Glycerol.		
<b>Purity:</b>	95% by SDS - PAGE		
<b>Endotoxin Level:</b>	< 1.0 EU per 1 microgram of protein (determined by LAL method)		
<b>Activity Assay:</b>	<ol style="list-style-type: none"> <li>1. Prepare 170 µl assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 200 mM Tris-HCl, pH 8.0, and 20nM chymotrypsin.</li> <li>2. Add 10 µl of recombinant PIN 1 protein with 1µg in assay buffer.</li> <li>3. Mix by inversion and equilibrate to 1C and monitor the A405nm until the value is constant using a spectrophotometer.</li> <li>4. Add 20 µl pre-chilled 5 mM suc-AAFP-pNA. (Substrate was dissolved in TFE that contained 460 mM LiCl to a concentration of 3 mM)</li> <li>5. Record the increase in A405 nm for 30 minutes at 25°C</li> </ol>		



**Amino Acid Sequence:** MADEEKLPPG WEKRMSRSSG RVEYFNHITN ASQWERPSGN SSSGGKNGQG  
EPARVRCSHL LVKHSQSRRP SSWRQEKITR TKEEALELIN GYIQKIKSGE  
EDFESLASQF SDCSSAKARG DLGAFSRGQM QKPFEDASFA LRTGEMSGPV  
FTDSGIHIL RTE

**Storage & Stability:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -80°C. **Avoid repeated freezing and thawing cycles.**



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