



Rabbit Anti-Pin1 antibody

SL3541R

Product Name:	Pin1
Chinese Name:	肽基脯氨酰顺反异构酶Pin1抗体
Alias:	DOD; NIMA interacting 1; Peptidyl prolyl cis trans isomerase NIMA interacting 1; Peptidyl prolyl cis/trans isomerase NIMA interacting; Pin 1; PPIase Pin1; Prolyl isomerase; Protein (peptidylprolyl cis/trans isomerase) NIMA interacting 1; Protein NIMA interacting 1; Rotamase Pin1; UBL 5; UBL5; PIN1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	18kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Pin1:56-163/163
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Pin1 is a Peptidyl-prolyl isomerases (PPIase). Peptidyl-prolyl isomerases (PPIase) facilitate the cis-trans interconversion of the peptidyl-prolyl bond thereby affecting protein folding. Pin1 is a PPIase which specifically recognizes phosphorylated S/T-P bonds.

Pin1 has been implicated in tau pathologies that underlie Alzheimer's Disease. Pin1 binds to tau phosphorylated specifically on the Thr231-Pro site and induces conformational changes in tau. Such conformational changes can directly restore the ability of phosphorylated Tau to bind microtubules and promote microtubule assembly and/or facilitate tau dephosphorylation. Pin1 expression inversely correlates with the predicted neuronal vulnerability in normally aged brain and also with actual neurofibrillary degeneration in AD brain. Pin1 could be pivotal for maintenance of normal neuronal function and preventing age-dependent neurodegeneration.

Function:

Essential PPIase that regulates mitosis presumably by interacting with NIMA and attenuating its mitosis-promoting activity. Displays a preference for an acidic residue N-terminal to the isomerized proline bond. Catalyzes pSer/Thr-Pro cis/trans isomerizations. Down-regulates kinase activity of BTK. 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.

Subunit:

Interacts with STIL (By similarity). Interacts with KIF20B. Interacts with NEK6. Interacts (via WW domain) with PRKX. Interacts with BTK. Interacts (via PpiC domain) with DAPK1. Interacts with the phosphorylated form of RAF1. Interacts (via WW domain) with ATCAY; upon NGF stimulation.

Subcellular Location:

Nucleus. Nucleus speckle. Cytoplasm. Note=Co-localizes with NEK6 in the nucleus. Mainly localized in the nucleus but phosphorylation at Ser-71 by DAPK1 results in inhibition of its nuclear localization.

Tissue Specificity:

The phosphorylated form at Ser-71 is expressed in normal breast tissue cells but not in breast cancer cells.

Post-translational modifications:

Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation at Ser-71 by DAPK1 results in inhibition of its catalytic activity, nuclear localization, and its ability to induce centrosome amplification, chromosome instability and cell transformation.

Similarity:

Contains 1 PpiC domain.
Contains 1 WW domain.

SWISS:

Q13526

Gene ID:
5300

Database links:

[Entrez Gene: 5300](#)Human

[Entrez Gene: 23988](#)Mouse

[Entrez Gene: 298696](#)Rat

[Omim: 601052](#)Human

[SwissProt: Q13526](#)Human

[SwissProt: Q9QUR7](#)Mouse

[Unigene: 465849](#)Human

[Unigene: 7906](#)Mouse

[Unigene: 6291](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

肽基脯氨酰顺反异构酶Pin1, 是调节细胞有丝分裂相关蛋白酶, 对细胞周期运行起着非常重要的调控作用。近年来研究表明, 肽基脯氨酰顺反异构酶Pin1在多种Tumour中过表达, 是多个致癌信号通路的关键效应分子, 可加强和催化多种致癌信号, 使其无限放大, 最终引起细胞转化和增殖失控。因次, 肽基脯氨酰顺反异构酶Pin1越来越引起人们关注, 被称为Tumour发生发展的催化分子。近来该蛋白用于老年痴呆研究的也日渐增多。