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Rabbit Anti-Pin1/Cy5 Conjugated antibody

SL3541R-Cy5

Product Name	Anti-Pin1/Cy5
Chinese Name	Cy5 标记的肽基脯氨酰顺反异构酶 Pinl 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.
Research Area	Tumour immunology Neurobiology Signal transduction Apoptosis transcriptional regulatory factor Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Dog,Pig,Cow,Horse,Sheep)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	18kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Pin1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% 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 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** 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 maintainance of normal neuronal function and preventing age-dependent neurodegeneration.

Function:
Essential PPIase that regulates mitosis presumably byinteracting with NIMA and attenuating its mitosis-promotingactivity. Displays a preference for an acidic residue N-terminal tothe isomerized proline bond. Catalyzes pSer/Thr-Pro cis/transisomerizations. Down-regulates kinase activity of BTK. Cantransactivate multiple oncogenes and induce centrosomeamplification, chromosome instability and cell transformation.Required for the efficient dephosphorylation and recycling of RAF1after mitogen activation.

Subunit:
Interacts with STIL (By similarity). Interacts withKIF20B. 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 WWdomain) with ATCAY; upon NGF stimulation.

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

Tissue Specificity:
The phosphorylated form at Ser-71 is expressedin 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 itscatalytic activity, nuclear localization, and its ability to inducecentrosome amplification, chromosome instability and celltransformation.

Similarity:
Contains 1 PpiC domain.
Contains 1 WW domain.

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 Pinl，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 Pinl 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 Pinl 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。