

磷酸化细胞分裂周期蛋白 25 抗体

产品货号： mlR3093

英文名称： Phospho-cdc25A (Thr507)

中文名称： 磷酸化细胞分裂周期蛋白 25 抗体

别名： cdc25A (Phospho Thr507); cdc25A (Phospho T507); Cdc 25a; CDC25A2; Cell division cycle 25 homolog A (S. pombe); Cell division cycle 25A; Cell division cycle 25A isoform a; Cell division cycle 25A isoform b; D9Erttd393e; Dual specificity phosphatase CDC25A; EC 3.1.3.48; M phase inducer phosphatase 1; MGC115549; CDC25A; CDC25A2 CAG isoform; M-phase inducer phosphatase 1; MPIP1_HUMAN.

产品类型： 磷酸化抗体

研究领域： 细胞生物 信号转导 细胞凋亡 细胞周期蛋白

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Chicken, Dog, Cow,

产品应用： WB=1:500-2000 ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 (石蜡切片需做抗原修复)

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

分子量： 59kDa

细胞定位： 细胞核 细胞浆

性状： Lyophilized or Liquid

浓 度 : 1mg/ml

免 疫 原 : KLH conjugated Synthesised phosphopeptide derived from human cdc25A around the phosphorylation site of Thr506:SR(p-T)WA

亚 型 : IgG

纯化方法 : affinity purified by Protein A

储 存 液 : 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件 : 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

产品介绍 : CDC25A is a member of the CDC25 family of phosphatases. CDC25A is required for progression from G1 to the S phase of the cell cycle. It activates the cyclin-dependent kinase CDC2 by removing two phosphate groups. CDC25A is specifically degraded in response to DNA damage, which prevents cells with chromosomal abnormalities from progressing through cell division. CDC25A is an oncogene, although its exact role in oncogenesis has not been demonstrated. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Function:

Tyrosine protein phosphatase which functions as a dosage-dependent inducer of mitotic progression. Directly dephosphorylates CDK1 and stimulates its kinase activity. Also dephosphorylates CDK2 in complex with cyclin E, in vitro.

Subunit:

Interacts with CCNB1/cyclin B1. Interacts with YWHAE/14-3-3 epsilon when phosphorylated. Interacts with CUL1 specifically when CUL1 is neddylated and active. Interacts with BTRC/BTRCP1 and FBXW11/BTRCP2. Interactions

with CUL1, BTRC and FBXW11 are enhanced upon DNA damage. Interacts with PIM1. Interacts with CHEK2; mediates CDC25A phosphorylation and degradation in response to infrared-induced DNA damages.

Post-translational modifications:

Phosphorylated by CHEK1 on Ser-76, Ser-124, Ser-178, Ser-279, Ser-293 and Thr-507 during checkpoint mediated cell cycle arrest. Also phosphorylated by CHEK2 on Ser-124, Ser-279, and Ser-293 during checkpoint mediated cell cycle arrest. Phosphorylation on Ser-178 and Thr-507 creates binding sites for YWHAE/14-3-3 epsilon which inhibits CDC25A. Phosphorylation on Ser-76, Ser-124, Ser-178, Ser-279 and Ser-293 may also promote ubiquitin-dependent proteolysis of CDC25A by the SCF complex. Phosphorylation of CDC25A at Ser-76 by CHEK1 primes it for subsequent phosphorylation at Ser-79, Ser-82 and Ser-88 by NEK11. Phosphorylation by NEK11 is required for BTRC-mediated polyubiquitination and degradation. Phosphorylation by PIM1 leads to an increase in phosphatase activity. Phosphorylated by PLK3 following DNA damage, leading to promote its ubiquitination and degradation.

Ubiquitinated by the anaphase promoting complex/cyclosome (APC/C) ubiquitin ligase complex that contains FZR1/CDH1 during G1 phase leading to its degradation by the proteasome. Ubiquitinated by a SCF complex containing BTRC and FBXW11 during S phase leading to its degradation by the proteasome. Deubiquitination by USP17L2/DUB3 leads to its stabilization.

Similarity:

Belongs to the MPI phosphatase family.

Contains 1 rhodanese domain.

SWISS:

P30304

Gene ID:

993



Important Note:

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

CDC25 家族的组成哺乳动物中 CDC25 家族一共包括 3 种同源异构体（CDC25A、CDC25B、CDC25C），约有 50% 的序列同源，是一组在细胞周期调控中发挥巨大作用的苏/酪氨酸双功能酶。不同的 CDC25 家族蛋白在细胞周期中的作用时相亦有差异，CDC25A 和 CDC25C 分别在 S 期和 M 期发挥主要作用。