磷酸化细胞周期检控 Rad17 蛋白抗体

产品货号： mlR3370

英文名称： Phospho-Rad17 (Ser645)

中文名称： 磷酸化细胞周期检控 Rad17 蛋白抗体

别　　名： CCYC; Cell cycle checkpoint protein; Cell cycle checkpoint protein RAD17; HRAD 17; HRAD17; R24L; Rad 17; Rad 24; RAD1 (S. pombe) homolog; RAD17 homolog; Rad17 like protein; RAD17Sp; Rad24; RF C activator 1 homolog; RF C/activator 1 homolog.

产品类型： 磷酸化抗体

研究领域： 肿瘤　免疫学　信号转导　细胞周期蛋白　转录调节因子

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应　： Human, Mouse, Rat,

产品应用： 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： 77kDa

细胞定位： 细胞核

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原 ： KLH conjugated Synthesised phosphopeptide derived from human Rad17 around the phosphorylation site of Ser645:PL(P-S)Q

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 ： The protein encoded by this gene is highly similar to the gene product of Schizosaccharomyces pombe rad17, a cell cycle checkpoint gene required for cell cycle arrest and DNA damage repair in response to DNA damage. This protein shares strong similarity with DNA replication factor C (RFC), and can form a complex with RFCs. This protein binds to chromatin prior to DNA damage and is phosphorylated by the checkpoint kinase ATR following damage. This protein recruits the RAD1-RAD9-HUS1 checkpoint protein complex onto chromatin after DNA damage, which may be required for its phosphorylation. The phosphorylation of this protein is required for the DNA-damage-induced cell cycle G2 arrest, and is thought to be a critical early event during checkpoint signaling in DNA-damaged cells. Multiple alternatively spliced transcript variants of this gene, which encode four distinct protein isoforms, have been reported. Two pseudogenes, located on chromosomes 7 and 13, have been identified. [provided by RefSeq, Jul 2013].

Function:

Essential for sustained cell growth, maintenance of chromosomal stability, and ATR-dependent checkpoint activation upon DNA damage. Has a weak ATPase activity required for binding to chromatin. Participates in the recruitment of the RAD1-RAD9-HUS1 complex and C12orf32/RHINO onto chromatin, and in CHEK1 activation. May also serve as a sensor of DNA replication progression, and may be involved in homologous recombination.

Subunit:

Part of a DNA-binding complex containing RFC2, RFC3, RFC4 and RFC5. Interacts with RAD1 and RAD9 within the RAD1-RAD9-HUS1 complex. Interacts with RAD9B, POLE, NHP2L1 and MCM7. DNA damage promotes interaction with ATR or ATM and disrupts interaction with the RAD1-RAD9-HUS1 complex.

Subcellular Location:

Nucleus. Note=Phosphorylated form redistributes to discrete nuclear foci upon DNA damage.

Tissue Specificity:

Overexpressed in various cancer cell lines and in colon carcinoma (at protein level). Isoform 2 and isoform 3 are the most abundant isoforms in non irradiated cells (at protein level). Ubiquitous at low levels. Highly expressed in testis, where it is expressed within the germinal epithelium of the seminiferous tubuli. Weakly expressed in seminomas (testicular tumors).

Post-translational modifications:

Phosphorylated. Phosphorylation on Ser-646 and Ser-656 is cell cycle-regulated, enhanced by genotoxic stress, and required for activation of checkpoint signaling. Phosphorylation is mediated by ATR upon UV or replication arrest, whereas it may be mediated both by ATR and ATM upon ionizing radiation. Phosphorylation on both sites is required for interaction with RAD1 but dispensable for interaction with RFC3 or RFC4.

Similarity:

Belongs to the rad17/RAD24 family.

SWISS:

O75943

Gene ID:

5884

Important Note:

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