

Rad17 (Phospho Ser645) Rabbit pAb

CatalogNo: YP0291 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse

Applications

- WB, ELISA, IHC

MW

- 77kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

IHC 1:50-300

ELISA 1:2000-20000

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human RAD17 around the phosphorylation site of Ser645. AA range:621-670

Specificity Phospho-Rad17 (S645) Polyclonal Antibody detects endogenous levels of Rad17 protein only when phosphorylated at S645. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): PAsQP

| Target Information

Gene name RAD17

Protein Name Cell cycle checkpoint protein RAD17

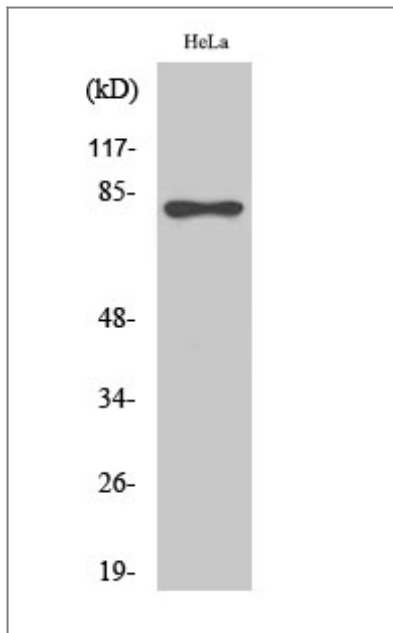
| Organism | Gene ID | UniProt ID |
|----------|-------------------------|--------------------------|
| Human | 5884 ; | O75943 ; |
| Mouse | 19356 ; | Q6NXW6 ; |

Cellular Localization Nucleus . Phosphorylated form redistributes to discrete nuclear foci upon DNA damage.

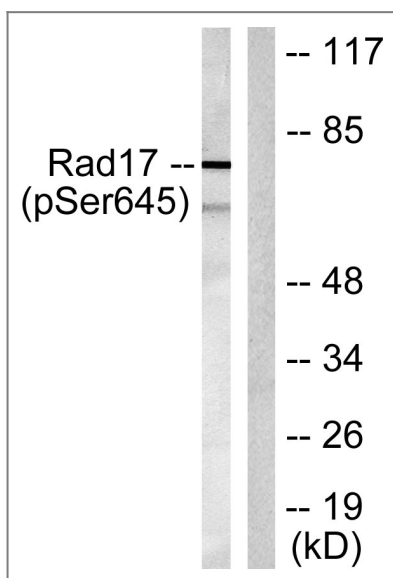
Tissue specificity Overexpressed in various cancer cell lines and in colon carcinoma (at protein level) . Isoform 2 and isoform 3 are the most abundant isoforms in non irradiated cells (at protein level) . Ubiquitous at low levels. Highly expressed in testis , where it is expressed within the germinal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

Function 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 onto chromatin , and in CHEK1 activation. May also serve as a sensor of DNA replication progression , and may be involved in homologous recombination. ,induction:By X-ray irradiation (isoform 1 , isoform 3 and isoform 4) . ,PTM: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. ,subcellular location:Phosphorylated form redistributes to discrete nuclear foci upon DNA damage. ,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. ,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) . ,

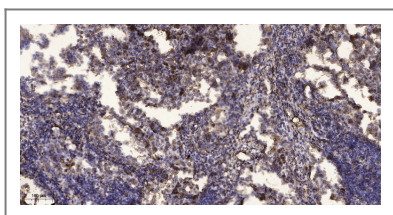
| Validation Data



Western Blot analysis of various cells using Phospho-Rad17 (S645) Polyclonal Antibody



Western blot analysis of lysates from HeLa cells treated with UV 15', using RAD17 (Phospho-Ser645) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human Squamous cell carcinoma of lung. 1, Antibody was diluted at 1:200 (4°C overnight). 2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min).

Contact information

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