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RAD17 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP6669a

Specification

RAD17 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession O75943

RAD17 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 5884

Other Names
Cell cycle checkpoint protein RAD17, hRad17, RF-C/activator 1 homolog, RAD17, R24L

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6669a was selected from the N-term region of human RAD17. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RAD17 Antibody (N-term) Blocking Peptide - Protein Information

Name RAD17 {ECO:0000303|PubMed:9878245, ECO:0000312|HGNC:HGNC:9807}

Function
Essential for sustained cell growth, maintenance of chromosomal stability, and ATR-dependent checkpoint activation upon DNA damage (PubMed:10208430, PubMed:11418864, PubMed:11687627, PubMed:11799063, PubMed:12672690, PubMed:14624239, PubMed:15235112). Has a weak ATPase activity required for binding to chromatin (PubMed:10208430, PubMed:11418864, PubMed:<a

href="http://www.uniprot.org/citations/11687627" target="_blank">11687627, PubMed:11799063, PubMed:12672690, PubMed:14624239, PubMed:15235112). Participates in the recruitment of the 9-1-1 (RAD1-RAD9-HUS1) complex and RHNO1 onto chromatin, and in CHEK1 activation (PubMed:21659603). May also serve as a sensor of DNA replication progression, and may be involved in homologous recombination (PubMed:14500819, PubMed:12578958, PubMed:15538388).

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

Tissue Location
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)

RAD17 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

RAD17 Antibody (N-term) Blocking Peptide - Images

RAD17 Antibody (N-term) Blocking Peptide - Background

RAD17 is highly similar to Schizosaccharomyces pombe rad17, a cell cycle checkpoint 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.

RAD17 Antibody (N-term) Blocking Peptide - References

Beretta,G.L., Cancer Lett. 266 (2), 194-202 (2008)Zhao,M., Head Neck 30 (1), 35-42 (2008)